

*"We do not take possession of our ideas, but are possessed by them.  
They master us and force us into the arena,  
Where, like gladiators, we must fight for them."*

—HUME.

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# THE ARENA

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## ARE SCIENTIFIC STUDIES DANGEROUS TO RELIGION?

DR. PARKHURST has recently raised a note of warning against what he thinks the great peril to which young men in our colleges are exposed through the acquaintance thrust upon them there with the latest results of the modern investigations of Nature. Rev. L. G. Broughton, in a still more excited strain, has recently called our universities and seats of higher learning dens of demons, so mischievous does he deem them to "faith." The exclusion by Cardinal Vaughan from the rites of the Roman Church of the distinguished Catholic layman, Prof. St. George Mivart, unless he would abandon and recant all criticisms and independent judgment of the scientific marvels and supernatural narratives contained in the Scriptures, is another significant illustration of the ban under which the Church still holds scientific investigation.

"The bankruptcy of science" has been a popular cry of late among a certain school of writers—the wish evidently being father to the thought. These representations of Science as a devouring wolf against whom every wise shepherd of souls should be on his guard are indeed very mild in comparison with the savage onslaughts which the students of Nature sixty and seventy years ago had to endure. Nevertheless, they show much of the same jealous spirit and short-sightedness of view, and are pregnant with quite enough mischief to the interests

of both science and religion, to call for that presentation of the real friendliness of natural knowledge to genuine faith which the facts of history so fully establish.

There are, I am willing to admit, cases where the study of science has had a demoralizing and withering effect. But in most of these cases this is due simply to misapprehension either of the real nature and demands of religion or a quite superficial knowledge of science; often both are united in plunging the young mind into the morass of skepticism. The popular preachers, from whom the student has gained his ideas of faith, have unfortunately identified it with certain theological dogmas of an antiquated type. The Christian must regard his Bible as an infallible authority, not merely in regard to scriptural truths but in regard to geology, biology, and anthropology. He must believe that the world was made in six ordinary days; that death first came by Adam's fall; that the fossils in the mountain-side were victims of Noah's flood; that a whale's gullet is big enough to swallow a man—or else Revelation is a lie. And so, if scientific researches throw discredit on these theologic figments, the young mind leaps to the conclusion that all the great truths of religion are illusions. Or, perhaps, the student has fallen under the influence of some of those physical dogmatists who not infrequently caricature the genuine spirit of science and who in the name of natural philosophy assert with positiveness the most uncertain theories—agnostic metaphysics concerning the limits of human knowledge and the possibilities of divine revelation; *a priori* materialism and empiricism of the most audacious type, whose doctrines of the eternity and exclusive existence of matter, of the non-existence of will and spirit, and of the universal authority of our narrow experience and the absolute certainty that there can be nothing deeper and grander within phenomena than is indicated on the surface, transcend altogether the experimental conditions and verifications which, in the same breath the scientists declare, constitute the criterion of truth. With such widespread ignorance among the followers of both religion and science concerning the laws and demands of their own fields of investigation,

and their still deeper ignorance of each other, it is not strange that reciprocal alienation and distrust should spring up. Nay, there are even notable cases of men who have gone with great diligence and profundity into scientific investigations and have thereby suffered mournful spiritual desolations. Prof. Clifford's sigh over the loneliness of the heart in a soulless world, "when it finds the great Companion is dead," and the withering up in Darwin not only of his earlier religious sentiments, but his esthetic capacity to enjoy poetry, drama, and music, are often quoted.

Science may have indeed sometimes wrought injury to the religious nature and the cause of Christian faith. But shall we therefore ostracize or ignore physical studies? We should remember that the study of history, of art, of mental philosophy, the indulgence in pleasure and amusements, the mixing with the world and the vicissitudes and temptations of life, have each of them withered and demoralized souls. For one skeptic who is made so by scientific studies there are a hundred unthinking men and women who give themselves up to practical paganism for no deeper reason than that the pleasures of the senses and the grasping of place and power have absorbed their desires as the only prizes worth seeking. Shall we then ostracize pleasure, social life, and all association with the world? Suppose the Church could do this; would it not find, as where the attempt was made by strict ascetic and monastic life so to do, that the consequent ignorance, fanaticism, and perversion of human nature have caused even worse demoralizations, superstitions, and immoralities? The quietism and exclusive absorption of the mystics in devout meditations have caused, indeed, as Church history shows, the worst kind of mental and moral perversions, heresies, and actual lunacies. So, also, the study of the Bible in an exclusive and one-sided way has been most injurious to true and sound religion. What scoffings and skeptic reactions, as in the case of Paine and Ingersoll and many others, has the doctrine of Scripture infallibility provoked! Even among devout churchmen, how much bigotry, persecution, warfare, and needless blood-spilling

has it occasioned! One of the interesting points in the history of the conversion of the Goths was the decision of Ulfilas, the first missionary to this nation, not to translate into their tongue the books of Joshua and Kings, on the ground that the Goths were already too prone to wars of conquest and deeds of violence. As the historian reviews the melancholy roll of the repeated wars raged by Christian nations, and approved by Christian ecclesiastics, he is inclined to wish that these sanguinary chronicles might have somehow been permanently excluded from the canon and thus saved from liability to stir up periodically the latent tiger in man to such flagrant contradictions of Christ's laws of peace and love as we see them doing, even among professed Christian ministers to-day.

Everything—even the best things are liable to abuse when wrongly employed.

The study of science should be recognized by the intelligent as necessary to faith. No one who would know God can half know him unless he knows these great laws and the works he has so patiently wrought out. To be afraid of science and its ordeals is to confess doubt of the truth of one's own faith, discredit one's senses and judgment, and turn traitor to the Creator who gave us our reason as the best guide to the knowledge of his ways.

The religious believer, just in proportion to the strength of his belief in the Divine omnipresence and creative action, must believe that Nature is no independent power, that man's perceptive and reasoning faculties are no unmeaning faculties, but that both physical and human nature are honest works of God, reflecting God's mind and purpose, and therefore are trustworthy witnesses of him. These fauna and flora which science describes are not its inventions. The hieroglyphics in the rocks which it deciphers are not of its construction. Science finds them in Nature because they are in Nature; and they are in Nature, every monotheist must say, by the creation or permission of God. For unless we go back to the polytheism of paganism or the dualism of the Parsees we must recognize God as the sole author of all things. Whatever facts or laws



or relations exist in the great temple of the world are there because such was God's will, and they show forth the attributes of the great architect as surely as the peculiarities of a villa or a cathedral exhibit the carelessness or faithfulness, the esthetic sense or lack of it in the builder.

Every law that science can unravel or every force that it can trace out is an expression of God's nature and has some Divine message to man. Every natural phenomenon—be it the building-power of molecule or colored bands in a spectrum, mimicry of insects, cross-fertilization of flowers, natural selection among animals, development or degeneration of species (provided it be a real fact, not mere rash conjecture)—has something to tell us of God's thoughts, powers, and methods of action. That is surely the worthier view of inspiration that limits its action not to any one century or nation, but recognizes it as guiding the studies of a Cuvier as well as the legislation of a Moses; animating the thoughts of an Agassiz or a Gray, no less than the songs of a David or the letters of a Paul. These later revelations, through the rocks and the stars, may disclose the Divine hand as acting in ways that we had not before supposed. They may compel theology to revise more than one of her philosophic schemes. But this revision religion should regard as received from God's own hand, and as simply bringing us nearer the Divine reality and truth. The rigid traditions that we will not allow God's sunlight to transmute into fresh and unclimbing growths petrify into sepulchers that seal our souls in spiritual death. He that confounds the march of the intellect with the operations of Satan evidently ought to trace his own origin to the devil rather than to believe the word of Scripture—that man was made in the image of God and that God saw all the works that he had made, and, behold! they were very good.

If there may be some respects in which science has been a source of harm or danger to religion, nevertheless, on the other hand, science has given religion aid and admonition far outweighing in value all the mischief it has done. Recall the positive contributions of science to natural theology: How,

*e.g.*, is the existence of God, as distinguished from a mere material mainspring or sum of force in the universe, demonstrated by the theologians? How else than by showing the intelligence and benevolence of Deity? And where are the proofs of these attributes found? Plainly in the admirable harmonies and adaptations of the physical world, the varied contrivances and blessings of social life, and the lofty attributes of humanity. All the potencies of the great argument from design, or that of unity, or causation, or a Divine moral government, rest for the grand strength they have to-day on modern scientific investigations in anatomy, chemistry, natural history, psychology, and sociology. Compare the proofs of God's unity and intelligence open to a David or a Paul with those which Prof. Cooke has found in chemistry, Winchell in geology, or Agassiz in natural history, and how much more manifold and marvelous are the latter!

In the next place, the study of science has immensely enlarged the dimensions of God's creation and heightened inexpressibly the grandeur of the Divine handiwork. How pretty a doll-house, comparatively speaking, was the world, as the thought of men conceived it down to the fourteenth century—its concave firmament but a little height above the plane of earth; its heaven with an area 12,000 furlongs each way, as the book of Revelation said (about equal in base to the area of the States of Texas and New Mexico) and its age only five or six thousand years at the utmost—if one accepts the chronology of the Church authorities! How magnificently has modern science stretched out these dimensions, dissolving the solid vault that shut man in so closely, into a boundless vista of galaxies and lending a new meaning to the word *eternity*! When the Bible chronology gave six days to creation and sixty centuries to the duration of the cosmic temple of Jehovah, modern science demands as many millions of years, through all of which God has been busy with his amazing creations and developments. Where the Church authorities gave us a diminutive vault in which the stars were fastened for the illumination of man's pathway on dark and moonless nights, sci-

ence has shown us an ineffable abyss of space, everywhere gleaming with suns and galaxies—a stellar system so vast that our own orb of day, albeit as much larger than our earth as a cart-wheel is than a pea, is only one of twenty million suns in our nearer section of the heavens, wherein the nearest fixed star is so far off that a locomotive traveling forty miles an hour could not reach it in 700,000 centuries.

And science has not only immensely increased our reverence and awe before the majesty of God's works: it has purified faith and strengthened trust. Without science to correct and guide it, religion is constantly going astray. The countless excesses and irrationalities of superstition, adoration of stick and stone, lizard or bull, devil-worship, witchcraft, orgies of Bacchus, devouring rites of Moloch, and unclean sacrifices to Venus—all illustrate the mournful corruptions into which devotion runs when divorced from understanding. Zeal without knowledge is as sure to curse the world as it is to bless it when united with wisdom. As Faith, in her mounting instinct, reaches up her hands, she clings to whatever object she first happens to grasp. The misshapen tree, the stone that fell from heaven, the serpent or crocodile whose power or cruelty terrifies it—whatever happens to fascinate the impressible imagination of the savage, or be believed to carry with it good luck, may become an object of worship. But with the increase of knowledge the powerlessness and worthlessness of these things for the worship of thinking men are seen. Then Faith reaches up her hand to higher objects—the great powers of Nature: moon, sun, fire, storm-cloud. But, again, as man learned more of these—the confined paths in which they move and the laws which they obey—and, in learning this, learned more of himself, he recognized in Intelligence and Will something greater than fire or cloud. Again, Faith raised her reverence to a company of human gods: Jove, king of heaven; Cupid, inspirer of love; Minerva, goddess of wisdom; Mercury, messenger for the heavenly company. But, again, with growing comprehension of the unity of all Nature, man rose to the idea of a single supreme Deity: Jehovah, Brahma, Allah; and the other deities

were thrust down into the position of devils, or subordinate spirits and divinities.

Through all these religious changes, it has been the work of gradually increasing knowledge to push faith onward and upward—from fetishism to Nature-worship, and from Nature-worship to polytheism, and from polytheism to monotheism—until at length the human spirit, finding one idol after another broken in her embrace by the iconoclastic hammer of science, transferred her allegiance to the grand ideal of one single infinite and perfect Being, without parts, without partiality and shadow of turning, to be worshiped only in spirit and in truth.

It is through the work of science, then, that we have to-day (instead of the rabble of deities, great and small, of former days) one God and Lord of all, one law and one element, in all and through all. It is because the Universe has been found to be a *universe*, in every part of which the same laws of gravity, light, heat, and uniform causation prevail, that the old-time polytheism is no longer conceivable. The conception of the world as an ordered cosmos has now become so familiar that we forget what constant fear and uncertainty beset the minds of men when, through caverns and secret ways, mischievous devils and imps could come up from the pits of hell to tempt and bewilder men; when the grave-yards were haunted by perturbed spirits; when a comet foreboded disaster to nations; when a sorcerer, by a compact with Satan, was believed to be able to blight the harvest or lay low whomsoever he wished with fatal disease. It is science that has ejected all this from the belief of enlightened men.

Men of science have been over all the earth and scrutinized every corner of the skies, exploring every dark recess and strange event. Their best instruments have caught sight of no devil. Their deepest mining shaft has reached no limbo of tortured shades. Specters have been reduced to illusions of the visual organs, and lunacy to affections of the cerebral lobes. The course of comets and the natural causes of the earthquake have been calculated and explained. The witches

and imps of the old dispensations have vanished before the light of modern knowledge, like shadows of a hideous night. Interruptions of the universal order, whether by wizard or holy exorcist or lucky chance, and irregular interventions, whether from the realms of *diablerie* or special Providence, are no longer credited; but the laws in which God's habits of action pass before our observation on their unswerving and beneficent way are believed to maintain everywhere the same sacred order. Lily and solar system unfold according to one and the same sublime formula. The universe has ceased to be thought of as coming into existence by one grand *tour de force*; but it exhibits instead a still more awe-inspiring spectacle—that, namely, of an ever-continuing and immanent process of organization. From the homogeneous to the heterogeneous; from the diffused and simple to the compact and complex; from the inorganic and lifeless to the living and organic: this is the eternal rhythm of the cosmic evolution.

To minds blinded by old traditions, these words—"evolution" and "universal and unchangeable order"—are full of dread. But to intelligent Christians this idea of an all-pervading order and a rational, steadily progressing universe supplies a nobler conception of a Divine Fatherhood and a firmer confidence in a Father's unwavering care. If religion has lost the old faith in frequent and capricious interventions of supernatural power and a world-temple finished once for all in a certain six days, six thousand years ago, it has gained in its place the conception of an indwelling and ever-active God who for a hundred millions of years has been carrying on his vast processes or molding and perfecting throughout the innumerable constellations of the universe. Under the influence of the two grand scientific discoveries of the nineteenth century—the conservation of energy and correlation of forces—demonstrated by Grove, Joule, and Mayer, and the still more epoch-making law of evolution, as demonstrated by Laplace, Darwin, and Spencer, the old view of Nature, as something separate from God—a mass of inert, independent atoms and their properties, the causes of whose changes must be looked for

outside of Nature: a conception that so constantly fostered materialism and atheism—is rapidly passing away. In place of these crude explanations, all the varied properties of matter are getting to be recognized as externalizations of forces, and all the diverse forces (whether electric, thermic, chemic, or magnetic) as but varying manifestations of one eternal, infinite, and omnipresent Force. Nature is thus shown to be what Alexander von Humboldt liked to call it—"one living Whole," the harmonious and growing organism that expresses progressively more and more of the thought and will of the eternal Spirit that is its moving life.

Modern science is therefore every day finding in Nature itself the deepest and most unshakable foundations for a belief in God. The great investigators proceed on their victorious course in a firm confidence in the rationality and intelligibility of the universe and thus become unable to resist the conviction of the intelligence and reason of the Supreme Cause behind it. As they trace the steady upward climbing from the fiery chaos of the limitless nebulousity to the exquisite and harmonious cosmos of all-pervading use and beauty around, it surely seems as if there had been through all an orderly march of thought, seeking an appointed end, unfolding rational ideas; and so the great thinkers of our age have to own, with Herbert Spencer, that "the necessity we are under to think of the external energy in terms of the internal gives rather a spiritual than a materialistic aspect to the Universe," and that "the universal Power manifested throughout the Universe," in whose presence we daily find ourselves, "is the same Power which in ourselves wells up under the form of consciousness."

Again we may notice that science, by teaching that the Universe is still evolving and is under the government of fixed law, suggests, in the promise of constant improvement and the correlative law of spiritual discipline and rational training by experience, the only satisfactory explanation and solace for the evils in the world. It has explained the thorns of Nature. It has rolled back the cloud of God's "curse" from the human race and dissipated the horror that once so haunted the cham-



ber of death, by showing that death is no sign of Divine wrath upon human disobedience, but a natural process—a thing that has always been in the world from the beginning, thousands of years before the first man plucked an apple. It has therefore contributed immensely to exalting the dignity of and strengthening the interest in human life and putting brightness instead of gloom into the vistas of the future, showing us how the order of the Universe and the method of God's dealing with his sons are those of steady progress, onward and upward forever. The fact that the great law of the cosmos is development—that all things are still in process, reaching forward to some dimly-discerned end—at once gives Religion a firm basis for indulging the noblest hopes, both for this life and the next, and forbids the critic to condemn life and the world for imperfections that are only as it were the chips and scaffolding of the growing temple: the puckery bitterness of the bud whose mellow ripeness is still to come.

I am aware that it is charged that those reconstructions which modern inquiry has made are unsettling the old foundations of religion and stripping off the bloom of sacredness from the flowers of faith. It is true that they have disabused us of many ancient veneration. To-day, when we bottle up the lightning and use it as our errand-boy, we no longer revere it as the bolt of Jove. But for everything Science has taken away from religion she has given her something greater. If with ruthless hand she has battered down baseless traditions, science consecrates with religious veneration the simplest real fact. The widening of the circle of the unknown has only served to confront us with deeper and more awe-inspiring mysteries. If science has expelled, from the realm of belief, witch and elf and demon, depopulated the supernatural world of a great host of uncanny creatures, and even ostracized the old-time interventions of capricious divinities, it is to give us in their place an unswerving system of constant order, luminous with beautiful necessities and rosy with the pulsing heart's blood of universal love. If science has disabused our thoughts of the idea of a fallen mankind and a ruined world, it has given us

the more cheerful faith in a steadily rising world, an ascending humanity, and a progressive society, whose epic is the gradual up-climbing of man from his primeval cave-dwellings to the civilization and refinements of to-day. If modern inquiry has made obsolete much or most of the subtle arguments from design for the Divine existence that Bell and Paley once accumulated, it has given us in its place a wider and profounder theology—that which rests on the unity of plan that must result from unity of force and law, made one in mind; and it forces on us with renewed cogency the incredibility that all the varied influences of the world should conspire, as they have, to develop so splendid a cosmos out of chaos, and such harmoniously adjusted and admirably perfected fauna and flora out of the primitive protoplasmic sameness, unless there were a rational will and purpose working within it all to guide it steadily in its continuous upward path. It used to be thought that when law begins the sphere of God comes to an end; but in the saner philosophy that evolution has inaugurated law and order have become the speaking witnesses of the Divine Presence. Progress and development disclose themselves as the outward demonstration and triumphant angels of the indwelling infinite Life.

Whatever minor injuries or disagreeable changes faith may then have received from modern knowledge, they are more than countervailed by the munificent assistance science has given. The real cause for the uncalled-for antagonisms and attacks made by ecclesiastics and men of science upon each other is not the reception of any real injuries. It is rather ignorance—ignorance of their own true realms and ignorance of their neighbor's domain. The remedy is to be found in a closer and more accurate knowledge one of the other. Our men of science need a more thorough knowledge of theology and its profound arguments. It does not need to be argued, I think, that religion is not a thing to be understood in all its breadth and depth by any one who can look through a microscope. When a chemist fancies, just because he can mix acids and alkalis skilfully, that he is therefore fully competent to

pronounce final judgment on the problems of prayer and the Divine existence, he is as likely to talk nonsense as any other dabbler. And contrariwise, when a preacher or divinity professor assumes that, because he has made learned studies as to Hebrew texts or the stages of Christian history, he is therefore competent to condemn as erroneous the views of a Darwin or a Haeckel as to the origin of species, he is equally unreasonable. Yet, unfortunately, it is apt to be those most ignorant of modern investigations and most unfitted to discern their bearing who most freely launch the dogmatic thunderbolts at them as impious and godless.

The best remedy, then, for the dangerous influences experienced or feared from the new knowledge of Nature everywhere spreading to-day is not less science: it is more and deeper science. Our investigations into Nature should be widened and carried to profounder depths. The scientists who have adopted anti-theistic or materialistic views have mostly been specialists—concerned with the surface details of some single science. But those who have gone down deeper into science, investigating its fundamental principles—like Jevons, Clerk Maxwell, Thompson, Tait, or John Fiske—have almost all of them recognized the great spiritual realities, because as they went profoundly into the philosophy of science they quickly found themselves confronted with those same mysterious forces and problems, inexplicable on mere physical grounds, which religion finds. As Lotze, the great scientific philosopher of Germany, was so fond of saying, we should recognize at once "how absolutely universal is the extent of the rôle which mechanism has to play in the structure of the world, but how entirely subordinate is its significance." These curious mechanisms are but instruments and signs that by their rude symbols testify of something higher and of more worth.

It is, then, more thorough and profound science that is needed, and by which its unspiritual crudities are to be corrected. A good illustration is supplied by one of those questions which have most alarmed pious souls—the correlation of mind and body. Down to the year 1850, while an opponent

of the French sensationalism and the English and German materialism might combat them on philosophic grounds or by facts of introspection, there was no properly scientific refutation of them, because there were no sufficient scientific tests. But when, between 1850 and 1860, Mayer and Joule demonstrated the correlation and conservation of the physical energies, and Fechner inaugurated the delicate experiments and measurements of physiological psychology, science obtained a test. If mental states were caused by physical changes, and if conscious energies were physical energies transformed, then, of course, the laws of the transformation and conservation of energy, which held true when friction was changed into heat and heat into electricity, must also hold true in the further transformation into thought. But when the tests were made the results did not conform to the theory. The mental state, according to the materialistic theory, should correspond in its intensity to the amount of physical force received by the consciousness. But it did not. Even in the simplest possible reactions of sense to stimulus, the experimenters found that there was always a disproportion, often most glaring. Nay, more—in the consciousness, supposed to be a transformed product of the incident physical energy, even the fundamental qualities of physical energy (extension and measurability) were absent. Moreover, it was found impossible to show that consciousness, when it appeared, did so at the expense of preceding material motions which thereby disappeared, or that it absorbed physical energy, as it should on the materialistic theory; or, conversely, that when consciousness disappeared, as in sleep or death, it released to its successors in the chain of causation, the physical energies, the motions or energies that consciousness had held for a while. In fact, close reasoners, such as Bain, Herbert, Romanes, Fiske, and Tyndall, soon saw that to suppose in a given chain of causation (as when a mosquito-bite on the shoulder runs up the nerves to the brain and through it and down the motor nerves to the hand that slaps the mosquito) that the material or physical series is interrupted by a mental link in consciousness, where the physical laws do

not prevail, is a supposition that would upset the whole physical theory of the conservation of force. The material or physical chain must be unbroken and uninterrupted, and the mental series must be a concomitant or accompaniment—nothing more. So the scientific world fell back first on the theory that the mental and physical series were distinct parallel circuits, and next on the monistic, double-aspect, or pan-psychist theory, as it is variously called.

Thus in the last twenty-five years the psychologists, simultaneously with their more minute and exact acquaintance with the astonishing correlation of physical and mental phenomena in the human organism, have come to turn their backs squarely on the crude materialism of the days of Vogt and Moleschott, when thought used to be spoken of as a secretion of the brain. Even the savants who formerly had permitted themselves to make statements that seemed to authorize the materialistic theories pulled themselves up sharply (as Prof. Huxley, for example, did), and gave public warning against any such interpretation of what they had said as might accuse them of approving these crude hypotheses. "If I say," declared Huxley, "that thought is a property of matter, all that I can mean is that actually and possibly the consciousness of extension and that of resistance accompany all other forms of consciousness. Why they are thus associated is an insoluble mystery." He repeated again and again that *matter* and *force* are, as far as we know, mere names for certain forms of consciousness. We only know force through our own conscious effort. "The will counts for something." "If I were compelled to choose between absolute materialism and absolute idealism, I would choose idealism."

Another noticeable fact in this connection is the potent influence and activity which the new psychology assigns to the mind over the body. All the work of the famous French investigators on hypnotism and of the English and American students of telepathy and mind cure, such as Charcot, Bernheim, Delbreuf, Gurney, James, and Hodgson, suppose the activity of the mind, by suggestion and the rousing of the will and the

concentration of attention on certain organs or desired results in those organs, to bring about unmistakable physical changes. They raise congestions and blisters and cause bleedings of the nose or skin, or, conversely, if these existed, cause them to disappear. The Italian experimenter, Prof. Mosso, gives a very interesting illustration of this power of the mind over the body. He puts a man in a delicate balance, so that he lies perfectly horizontal. Then the man is asked to concentrate his thought on some abstruse mathematical calculation—and down his head goes, because the blood has rushed to his brain. Then the man relaxes and tries to go to sleep—and up goes the head and down the feet, because the blood, by the effort to sleep or dismiss all thought, has been shut off from the brain. This initiative and directive power of the mind over the body has been strongly brought out by modern psychology. This positive influence of the mind over the physical order is a matter of common observation. We all know how a merry thought sets the lips singing and the limbs dancing; how grief convulses the features; how anger gathers the brow in frowns; how hope stimulates the nervous system and despair and fear depress it.

Mental medicine is no new discovery, but one long used by wise doctors—if not openly at least in the form of bread pills and similar devices. A course of mental work, say the anatomists, deepens the cerebral furrows; a course of vocal and musical instruction multiplies the fibers of corti in the ear. It is the functions of consciousness and thought, according to Herbert Spencer, that develop the structure of the brain. The origin of the fittest, according to Prof. Cope, is to be found in the directive power of the mind over its organism. "All this evolution," he says, "has been simply due to the active exercise of mentality, or mental qualities." It is, of course, from the outer world that we are supplied with the data of sensation. But this medley of impressions would remain within us a similar unordered and encumbered chaos of images were there not within a directive and arranging power that spontaneously rises up to subdue and utilize the crude flood of incoming sen-



sations. Whenever we examine our daily mental processes we become conscious beyond a doubt that our inward thoughts and feelings are not passively determined by powers foreign to ourselves, but that the inpouring throng of sensations is ever met at the threshold of consciousness by an inward master-power that disposes of the incoming rabble according to methods and wishes of its own—sorting them according to classes of our own mental classification; listening to and interpreting carefully some sensations, and dismissing curtly many others as irrelevant or not desirable of attention; registering certain facts for future use, and giving to motor nerves and muscles the commands suitably responsive to certain other bits of news. Were it not for this power of fixing our attention at will on some one line of thought and shutting out disturbing sensations and ideas, no difficult line of reasoning would ever be thought out and no student could successfully learn his lessons.

These are facts of consciousness which in a general way are familiar to all who have made observation of the workings of the mind, but which the New Psychology of the last twenty-five years, by its delicate observations and experiments, has firmly established and called fresh attention to. They emphatically negative the idea that "the human mind is only and wholly a physical machine;" for, in that case, thought and feeling would be the passive effects or attendants of the physical changes. Life would go on just the same whether men walked about in their present consciousness or as unconscious automata. But if consciousness thus be really superfluous and impotent—a useless consequent to the physical changes—why was it added to the body and why is it kept in existence? As the Darwinian principle, that all useless organs and functions wither up and disappear, has been more generally accepted, it has been recognized that if consciousness has no real activity and use it ought long ago to have vanished from the world, instead of constantly developing, as it has done.

Some one, perhaps, is mentally asking, How do you explain the disappearance from observation of the mental faculties when a surgeon cuts out their corresponding cerebral centers?

I reply, in the same way that you explain a musician's inability to sound A sharp and B flat when those particular strings are broken. That does not prove the musician a myth. These phenomena of mutilation, instead of proving the mental qualities to be products of the mechanical structure, prove the reverse; for when Prof. Goltz kept the mutilated dogs alive for six months they regained the lost faculties. The life force either grew a new set of the needed nerve ganglions or found out how to use some other part of the brain to do the work it formerly did with the part cut out. But if it had been just a machine and nothing more, the dog's mind would have gone on to the end as when first mutilated. As a machine it could function only according to its imperfect structure. When we see a machine repaired or getting along just as well when two or three of its principal wheels have been taken out, we know there is somebody there who is not a machine—somebody with intelligence and power of his own. An automaton that can repair itself and learn by experience is simply incredible.

If the religious world, then, would but cultivate a fuller knowledge of the natural sciences it would not be filled with the periodical alarms that now agitate it at the progress of physical investigation, but would hail in each new discovery a fresh source of strength to religion. If there are any to whom this aid seems doubtful, let us bring it to what ought to be admitted by all as a fair test. Let us appeal to facts. If science leads pretty surely to irreligion, then the leading men of science in this age of science should for the most part be materialists or atheists, or at least agnostics. As a matter of fact, is it so? Let me quote from two eminent scientific authorities. Prof. Tait, of Edinburgh, in reply to a charge of this kind brought some years ago, made this statement:

"When we ask any competent authority who are 'the advanced,' 'the best,' and 'the ablest' scientific thinkers of the immediate past in Britain, we cannot but receive for answer such names as Brewster, Faraday, Forbes, Graham, Rowan, Hamilton, Herschel, and Talbot. This must be the case unless

we use the word *science* in a perverted sense. Which of these men gave up the idea that Nature evidences a designing Mind? But perhaps Mr. Froude [to whom Prof. Tait was replying] refers to the advanced thinkers still happily among us. The names of the foremost among them are not far to seek. But, unfortunately for his assertions, it is quite certain that Andrews, Joule, Clerk Maxwell, Balfour Stewart, Stokes, Sir William Thompson, Owen, Mivert, Beale, Carpenter, Laycock, Jevons, and such men have each and all, when the opportunity presented, spoken out in a sense altogether different from what is implied in Mr. Froude's article."

That was Prof. Tait's emphatic statement some years back. As to the situation in our own decade, let me quote the authorized statement of a well-known Fellow of the Royal Society of London, the representative association of foremost British men of science, as given by Prof. Henry Drummond. Says this distinguished man of science:

"I have known the British Association under forty-one different presidents, all leading men of science. On looking over these forty-one names, I count twenty who, judged by their private utterances, are men of Christian belief and character; while, judging by the same test, I find only four who disbelieve in any Divine revelation. Of the remaining seventeen, some have possibly been religious men and others may have been opponents; but it is fair to suppose the greater number have given no serious thought to the subject. The figures indicate that religious faith rather than unbelief has characterized the leading men of the Association."

Or look on this side of the Atlantic and recall the leading names—Prof. Henry, Benjamin Pierce, Asa Gray, Prof. LeConte, Prof. Cope, Prof. Cooke the chemist, Shaler the geologist, Dr. John Fiske, Prof. Dolbear, Eliot Coues, Dr. Gould the biologist, Prof. Winchell, Prof. Wm. James, Sterry Hunt, Prof. Dawson, President Jordan of Leland Stanford University, and Professor Stanley Hall of Clark University: are they not all, perhaps not orthodox, yet in the great company of those who recognize the essentials of religion—the reality of God, duty, and a spiritual element in man?

Three summers ago, supping at Greenacre with Prof. Joseph

LeConte and Prof. Lester Ward and Dr. Holbrook, Prof. LeConte spoke of the almost complete passing away of the wave of materialism and atheism that thirty-five years ago was so noticeable among young men of promise in scientific circles. He said that he hardly knew an eminent man of science who to-day held an intellectual position that was materialistic or anti-theistic, and the others in the group entirely assented to his statement. And within the last year the Rev. E. P. Powell, the learned author of "Our Heredity from God," emphatically stated in the *New Unity* (April 23): "Out-and-out evolutionists have for some time ceased to be agnostics. Of noted evolutionists, I know not half a dozen that do not have a conviction of God and immortality."

A candid study and a correct knowledge of the great facts of Nature are not and cannot be prejudicial to true religion. What has suffered by the progress of science has usually been simply the outgrown science of former generations, which to save itself from criticism bolstered itself up on Scripture texts; or it is the obsolete metaphysics and traditional dogmas, which have audaciously assumed that they and they alone constituted religious truth, that have cried out in painful discomfiture. As in Augustine's day, Christianity was made inseparable from the doctrines of predestination; in Roger Bacon's, with the philosophy of Aristotle; as in the days of Vesalius, it was bound up with the medical theories of Galen; and in Galileo's life-time, with the astronomy of Ptolemy—so to-day it is the orthodoxy of the Council of Trent or the Westminster Catechism that is cemented to religion, and any attack on either is assumed to be undermining the very foundations of faith and morals. Or, if essential religion has really suffered assault, it has not been from science, properly so called, that the attack has been received: it has come chiefly from writers who have a superficial knowledge of modern science and who have seized upon some of its more startling and careless utterances, and, without understanding them or knowing the limitations and balancing considerations which correct them and which very often are found in other parts of the

scientist's writings, have erected them into an extreme scientific dogmatism, as mistaken and injurious as the theologic dogmatism it attacks. Patent examples of this are to be found in the popular materialism and agnosticism, which like to pose as the most advanced outposts of modern thought because they have got farthest away from the ground of common sense. We should remember not only that theology is a very different thing from religion, and not necessarily to be confounded with it, but also that conjectures and theories as to the origin and essence of the world need something more than novelty and irreverence to constitute them true science. If all uncommon speculations be science, how many scientific carcasses fall in the dust every year!

Of course, I am not blind to the fact that modern science is often too contracted in its outlook. It confines its studies too narrowly to the inorganic and subhuman world. It should add to its field of investigation the domain of human nature and history, and recognize in these a revelation of Divine truth not less significant than what star and strata supply. Religion has its inductive data just as much as geology or natural history. The immaterial thought, the self-directing will, the sense of right and wrong—these are facts as much as attraction of magnet or undulation of sound-wave. Immortal longings inexplicable by the elements of protoplasm, heroisms and self-sacrifices incredible on principles of self-interest, a current in human affairs steadily tending toward the right, the good, and the true—these also are facts. A complete science ought to study these facts candidly and set forth the logical inductions from them, *vis.*: soul and God. While reason, and not sentiment, is the final judge, the former, investigating truth in any broad scientific spirit, must take note not only of the verifications of physical theories in physical experiences but of the equally strong verifications that are to be found of spiritual truth in spiritual experiences. A complete science should own the force not only of those native predispositions that assure us of the constancy of Nature and the indestructibility of matter, but of those ineradicable convictions that as-

severate the soul's immortality. It should recognize not only the questioning of the human mind for second causes, but the imperative demand of the causal instinct to pass on from the phenomena to the law and force, from the force to the Primal Cause, and from the law to the Lawgiver, till it steps into the very temple of Divine worship.

Many of the representative men of science, in a spirit of caution that they believe is demanded by their jealous mistress, draw back from taking (at least when speaking in the name of physical research) this last step into the inner court of religion. But every one who watches the currents of modern investigation into Nature notices that all earnest study of the marvels of the universe leads almost inevitably to taking the first steps on the road to faith. As the savant traces backward and forward the successive ages of the world, he makes the acquaintance of that which is not less than eternal. As he meditates on the course of matter and space, spreading out on all sides without conceivable end, he recognizes that which is *infinite*. As he tracks the restless energies of the cosmos, he comes to know that to which he can give no weaker epithet than *omnipotent*. Through the multitudinous variety of the Universe he discerns the Unity on the axis of which all turns—the single center whence all things radiate. Contemplating this stupendous Power and entering into its marvelous secrets, he is filled with irrepressible awe. If he does not feel at liberty himself to pass over the experimental boundary and draw with the pen of faith those higher inferences in which the theologian delights, he cannot consistently contradict or oppose those influences. If Faith may boast of certain further privileges of spiritual intuition in this spiritual realm, she should be grateful to Science for going with her and helping her as far as Science has. Recognizing, as Religion does, the whole Universe as the embodiment and manifestation of the Creator, the Church ought always to encourage rather than discourage the fuller knowledge of this embodiment and manifestation; for, to the consistent worshiper of the one and only God, Nature is his oldest Testament and his most direct Scripture.



The ideas disclosed in it are God's thoughts; the laws of force and matter found there are God's plans materialized; and natural history is but a chapter of natural theology. And the finding of a new manuscript of the Bible or hitherto unknown sayings of Jesus should not rejoice the Church more than the discovery of a new law of Nature.

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## HOW TRUSTS CAN BE CRUSHED.

**I**LLEGAL combinations of capital, known as Trusts, exist, and find great profit and no molestation in continuing to exist, in defiance of law. Yet the law should be supreme in a land where the will of the people expressed through their representatives is the law, and the greatest as well as the humblest should bow in submission to it.

The Congress of the United States—ch. 647, Statutes of 1897, known as the "Sherman Anti-Trust Law"—prohibits Trusts under a penalty of \$5,000 and one year's imprisonment; and that act has been held constitutional by no less than three well-known decisions. In nearly all, if not in all, the States, there has been similar legislation. In North Carolina, by an act passed in 1889, Trusts were made punishable by a fine of \$10,000 and ten years' imprisonment. That act defines a Trust as "any arrangement for the purpose of increasing or decreasing the price of any class of products beyond the price that would be fixed by the natural demand or supply."

Yet Trusts, thus doubly illegal, being denounced by both State and Federal law, and whose managers for ten years past have been liable every day to fine and imprisonment, with impunity oppress the public and pile up the wealth that belongs to the many in the overflowing coffers of the few. There should be faithful execution of the law and an impartial enforcement thereof against those who find enormous wealth in its habitual violation as well as against those who violate it from passion or need and without profit.

When the great armies of Europe, in the year 1814, in overwhelming numbers were converging upon Paris, defended by a feeble band under Napoleon, an unexpected move of that great genius disconcerted them so that an immediate retreat was begun by their vast forces. An unsigned note, in a lady's hand, coming from Paris was delivered to the commanding general. It read, "You can do everything and you attempt

nothing." That note changed the face of the world. A council of war was held; the allied army about faced and marched straight on Paris. The great military monarchy of Napoleon fell. So it should be said to the American people: "You complain of the evils the Trusts inflict upon you. You complain that the earnings of the producer, and the profits of the small dealer, and the opportunity for advancement to many, are all confiscated for the creation of a few multi-millionaires. Why do you complain? The remedy is in your own hands. You can do everything, and you attempt nothing."

The people are all-powerful when they really will it. At one exercise of their will they can take charge of this government from constable to President. If members of the State Legislatures and Congress are unfaithful, the people should mark their course and elect others. If statutes passed in the public interest are held unconstitutional by judges, then the same people who made the Constitution (whether State or Federal) can amend it if really necessary; or if the fault is in the judges, remove them and put better men in their places. The servant is not above his master, and judges and all other public officials are servants of the people—and they are nothing more.

The statutes making Trusts illegal have not been enforced. Then let the master, the sovereign people, look into it and see what public servants have been lacking in zeal to enforce the law.

Those who are friendly to the Trusts say that there *are* no Trusts. The defense made by these hirelings of unlawful combinations of capital—for no man, unless receiving benefit from them, would defend them—sounds like a plea set up by a lawyer whose client was sued for damaging a kettle he had borrowed. His plea ran thus: (1) The kettle was not cracked when he returned it. (2) It was cracked when he got it. (3) He never had the blamed old kettle. So these advocates of the Trusts say: (1) Trusts are very useful and beneficial. (2) They are a necessary and unavoidable evil. (3) There are no Trusts.

But every one knows perfectly well that there *are* Trusts. They dip into every dish and levy tribute on everything that is eaten, worn, or otherwise used. They have eaten up the just earnings of the toiler and the tradesman. They are as voracious and as thorough as the locusts of Egypt. They are illegal and oppressive. The people can and ought to suppress them.

It will be asked how this can be done. An honest, faithful execution of the laws already upon the statute-books would destroy them; and this faithful execution can be had whenever the people will arouse themselves to select only such public servants as will faithfully execute those laws. But it has been suggested that additional enactments will be useful. I would not be understood as opposing any suggestions made by others who may be more familiar with the subject than I, and who have studied it more profoundly; but I venture to suggest some enactments that may well be passed by any legislature that is seriously hostile to these cancers upon the body politic.

First, consider the nature of the operation of these illegal combinations. They combine vast masses of capital; then whenever they find an honest dealer or a competing manufacturer making a reasonable profit on goods similar to theirs, they put an agent, or open a store nominally in the name of another, alongside of him and undersell him till they have broken him up or forced him to sell out to the Trust; whereupon immediately the price of the manufactured article is put up to the consumer, and the price paid to the producer for raw material is reduced. The monopoly having no longer any competition, the producer is forced to take an unjustly low price and the consumer is compelled to pay an unjustly high one, and the opportunity of countless thousands of men, who would have been dealers and manufacturers, to support their families is destroyed. Those dealers and manufacturers would by their competition have guaranteed just prices to the creator of the raw material and reasonable prices to the consumer; but the Trusts destroy both classes alike, and put the profits into their own coffers.

The additional legislation that has occurred to me is as follows:

1. The Trusts, being illegal, should be treated as all other outlaws and forbidden the use of the courts to collect debts due them and for all other purposes. When they sell goods on credit, or seek injunction to restrain use of a trade-mark and the like, the defense that the plaintiff is a Trust may be pleaded, and, if proved, should bar any judgment or execution in their favor. Enormous as are their illegal accumulations, even the Trusts must do some business on credit. Such an act as this has been passed in Missouri, and I believe in Arkansas and Texas, and possibly other States. In some States, notably in this, the Trusts have been able to defeat similar bills when introduced. That the Trusts should earnestly oppose such legislation is conclusive answer to those who say the law would have done no good. The Trusts may be trusted to know their own interests. Whenever and wherever hereafter such bills shall be introduced, if the matter has been discussed beforehand and public opinion has been unmistakably indicated, legislators will turn a deaf ear to Trust lobbyists, "charm they ne'er so charmingly."

2. This State has passed a statute that forbids any corporation chartered in another to do business here until such company has been rechartered in this State and has become a North Carolina corporation. Many other States have passed a similar statute. This has been held constitutional by the Supreme Court of this State, and similar acts have been sustained by the Supreme Court of the United States. By its rigid enforcement every corporation doing business in this State will be subject to State control and regulation. If any of them are proved to be Trusts, or otherwise doing an illegal business, they can be wound up and forced to cease their operations in this State.

3. Another just measure is one recently put in force in Germany, by which a graded tax is laid upon the earnings of corporations, the per cent. of taxation being proportioned to gross earnings. This discourages very large aggregations of

capital and tends to give small manufacturers and small dealers an opportunity in the struggle for existence. It is a just application of the maxim, "the greatest good to the greatest number," which must be the basis of all good government. It is better far that we have a very large number of prosperous, well-to-do citizens, with moderate incomes, than a few multimillionaires "high rolling" in London and New York while the masses of our people are struggling for a bare living. A similar application of the German principle is the graded inheritance tax and graded income tax in England, by which the great fortunes are heavily taxed, raising in this mode about one-third of the annual revenues of the British Empire, while the small estates are lightly taxed and those under a certain sum are entirely exempt.

4. And there is still a fourth measure of relief. The Trusts operate by underselling the small dealer and raising the price of raw material to the small manufacturer; and after they are forced out, the Trust reduces the price to the producer and raises it to the consumer. This can be met by a statute empowering the courts in such cases to issue writs against any corporation that has thus reduced prices of the manufactured article from again raising them, and making an attempt to do so a forfeiture of the charter, provided a jury shall find that the reduction was made for the purpose of destroying competition. As under the statute referred to in the paragraph numbered 1 above a corporation cannot do business in a State without taking out a charter therein, this would close out all such operations. Individuals may reduce prices at will; but, when corporations created only by the State use their powers against the public interest, it can be made cause for withdrawing those powers.

Besides the evils from Trusts already enumerated, these are further to be considered:

(1) Under a normal and just condition of affairs the greater profits of the producer of the raw material, of the small manufacturer and small dealer, and the sums saved to the consumers by the lower price to them when there is competition—all



these stay at home, and their accumulation will make the State rich. Under Trust rule all these profits are accumulated in a few hands and are steadily carried off to the great money centers to the permanent impoverishment of the country districts.

(2) The owners of the vast accumulations of these illegal concerns, operating under the prohibition of both State and Federal statutes, require to be protected against the penalties denounced by those statutes. To that end, portions of the amounts illegally levied upon the public by these modern Dick Turpins are set aside for the purchase or control of newspapers, for donations to educational institutions that shall indoctrinate our youth with sentiments of the beauty and holiness of Trusts and the liberality of Trust magnates, and for the debauching of elections and the manipulation of Legislatures and Congress through "lobbying" and other well-known and reprehensible methods. They are thus truly cancers upon the body politic.

These and other evils are known to every one. They are like the sun—but only in that none can fail to see them. No one denies the existence of these evils or apologizes for them save those who are employed by the Trusts or who are in some way favored or controlled by them. Public opinion and public interest are against them—but the Trusts survive and prosper exceedingly. Yet the people can put an end to them whenever they shall so will. Will they do it? Shall it be said of our people, as of the allied armies of 1814?—"You can do everything, and you attempt nothing."

The British government of 1776 in this country stood for plutocracy. The Whigs of that day, led by Washington, Adams, Jefferson, and others, stood for a government of men, and conquered. The Trusts of this day are a revival of the Tories of 1776 and stand for government by the moneyed classes. Are we weaker than our forefathers? They won the right of self-government for us. Shall we lose it? Shall we permit the true center of government to go back to Threadneedle street in London, with Wall street, New York, as its

American agent? When a knowledge of the real situation shall once get to the masses of this country, there can be but one answer.

Agitation and time are necessary to reach the rank and file. Storms and whirlwinds may agitate the surface of the ocean, but the great depths are not so easily moved. The heart of Pharaoh was conquered only by great afflictions. The people will surely be moved by the greater oppressions the Trusts are preparing to pile upon us. These oppressions will touch the hearts and quicken the intelligence of the masses as nothing else will. They will be ready for decision, and when they are the bonds with which the Trusts have bound them will burst like the green withes that were laid upon Samson.

Deliverance will come, but it can come only from the people themselves.

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*Raleigh, N. C.*

## THE LAST CENTURY AS A UTILITARIAN AGE.

UTILITY was the key-note of the nineteenth century. Not that it was an age barren of poets, dreamers, and philosophers, but the utilitarian idea pervaded society in almost all its complex relations. Perhaps the three illustrations most impressive of this fact are to be found in the utilization of by-products, the utilization of Nature's mighty forces for the benefit of man, and the invention and discovery of labor-saving machinery and methods for the performance of needed work.

### I. UTILIZATION OF BY-PRODUCTS.

During the last hundred years science has unfolded wonder after wonder, until the imagination of man is almost staggered in the presence of her revelations, while the succession of miracle-like inventions has caused us to cease to marvel at achievements that yesterday were universally accounted impossible. Yet I doubt whether the wonder-stories of nineteenth-century science or the dazzling triumphs of inventive genius are more marvelous than the record of how the utilitarian spirit of this century led men to find hidden wealth in things that for ages have cumbered the land or have been discarded as worthless.

Let us take, for example, the stalks of the Indian maize, or American corn. In some parts of America thrifty farmers utilize the corn stalks for fodder, but in the vast fields of the middle West and South little or no value was placed upon the stalks after the corn had been gathered. Usually cattle were turned into the field to glean the ears that might have escaped the farmer and to eat the tenderest leaves remaining on the withered stems; but after that the great fields remained covered with the dry and unsightly stalks until the time of cultivation the following spring arrived. How little value was placed upon the fields denuded of corn may be seen when we learn that in the great corn belt sixty cents an acre was regarded a good price

for stockmen to pay either for the fodder shocked in the field or for the privilege of using the field as a range for their cattle.

Now, into this unpromising field the utilitarian spirit called to its aid science, discovery, and invention, and during the last five years of the century revolutionary discoveries were made. The despised corn stalk became almost as valuable as the corn it produced, and, instead of finding his field after harvest a drug on the market at sixty cents an acre, the farmer in several sections of the country realized from six to twelve dollars an acre for the stalks. A thoughtful writer, who made a careful and exhaustive study of the whole subject connected with the utilization of this by-product for the *Orange Judd Farmer*, observes in that representative agricultural paper that—

"the possibilities thus opened up are prodigious. To add only a few dollars per acre to each one of the 80,000,000 acres devoted to maize in the United States each year runs into a sum so fabulous as hardly to bear publication. But if it is assumed that only the fields of the corn belt will be benefited, those eight States—Kentucky, Ohio, Indiana, Illinois, Iowa, Missouri, Kansas, and Nebraska—alone average close to 50,000,000 acres under corn. If only five dollars an acre is added to the value of the crop in this limited belt, it means the tidy sum of \$250,000,000 added to the farmers' income. And most of it would be net profit, the balance paying for labor in place of enforced idleness. Since the value of the corn (grain) crop in this Western belt averages only six to ten dollars per acre, any such cash return for the stalks alone would practically double the value of the crop. And corn (grain) produced in the United States each year is alone worth 650 to 850 millions of dollars."

But the question naturally arises, How is it possible so to utilize the corn stalk, after it has yielded its rich harvest, that it can be made to net the farmer so large a sum and still be profitable to the purchaser? In answer to this question the writer from whom I have quoted above thus replies:

Here is the list of the products that have already been made on a commercial scale from the maize stalk:

1. Cellulose for packing coffer-dams of battle-ships, thus preventing them from sinking when pierced by balls or shells.

2. Pyroxylin varnish, a liquid form of cellulose, the uses of which are practically unlimited.

3. Cellulose for nitrating purposes, for making smokeless powder and other high explosives, for both small and great arms, as well as purposes for which dynamite or other explosives are required in various forms and degrees of strength.

4. Cellulose for packing, it being the most perfect non-conductor known against heat or electricity, jars or blows.

5. Paper pulp and various forms of paper made therefrom, both alone and mixed with other grades of paper stock.

6. Stock food made from fine ground outer shells or shives of corn stalks, and also from the nodes or joints. The leaves and tassels also furnish a shredded or baled fodder.

7. Mixed feeds for stock, containing fine ground shells or shives as a base, and in addition thereto various nitrogenous meals and concentrated food substances, or blood, molasses, distillery and glucose refuse, sugar-beet pulp, apple pomace, and other by-products.

8. Poultry foods of two types, namely—type 1, containing a dominant nitrogenous factor for laying hens, and No. 2, containing a dominant carbohydrate factor for fattening purposes.

This is but a bare enunciation of the principal classes of corn-stalk products. Each class may be subdivided into a variety of purposes. The value of these products is unquestionably great. Any one of them is important enough to form a large industry of itself.

The cellulose packing made from the pith of the corn stalks has been proved, after the most severe tests, to be an absolute protection "to battle-ships against danger from sinking due to the entrance of water."

"Coffer-dams about three feet in thickness, when tightly packed with maize pith and perforated by shells or solid shot, are completely impervious to the passage of water. . . . When the coffer-dam containing this material is perforated by a shot, the elasticity of the tightly-packed pith completely closes the hole made by the projectile, so that the water cannot pass through. Naturally some water must enter at the point of perforation; but owing to the great capacity of the pith to absorb water, it being able to hold more than twenty times its own weight when not pressed, the water that first enters is at once absorbed. This causes the pith that is moistened to swell, and thus to close more completely the aperture made by the projectile."

Something of the value of this new product may be gleaned from the observation of naval constructor Lewis Nixon, who declares that "the discovery and application of cellulose are of as vital importance to the navy as the development of Harveyized armor and smokeless powder." Several of the leading European nations have already followed the example of our government and are using this cellulose for the protection of their battle-ships. Among other leading uses of this product, as enumerated by the writer I have quoted, are high explosives: "The best smokeless powders and dynamites are made from this nitrated corn pith. The powders have remarkably permanent qualities, not being open to decomposition and thus being safer to keep and use than the ordinary smokeless powders heretofore manufactured."

Many people who take little pleasure in battle-ships or smokeless powder will be interested to know that "in paper manufacture the use of corn-pith cellulose is destined to play an important part. The outer shell or shives of the internodes of corn stalk under proper treatment yield a pulp that can be used alone or as an admixture with cheaper pulps for making paper." It is predicted that fine book paper will be one of the products of corn stalks, and, according to our author, "it may yet prove true that the humble corn stalk will be a most potent factor in preserving forests. The consumption of forests by wood-pulp mills has assumed vast proportions, and already threatens the dire consequences of forest denudation. With corn-stalk pulp obtained more cheaply and of better quality than wood pulp, and as an incidental by-product of other manufactures instead of being the sole product, as in wood-pulp mills, the possibilities of the pulp feature of corn-stalk utilization are certainly immense."

Space prevents our noticing at length the other practical uses to which the products of the corn stalks are already being put, but enough has been said to indicate the great value of this by-product, which since the use of maize by civilization has been esteemed of little or no value.

In the cotton seed we have another illustration of a by-



product becoming immensely valuable to civilization. For generations the seed of this plant was accounted a positive nuisance, but the spirit of utility took the scientist by the hand and led him to the high black mounds of seed, with the result that a rich yield of an immensely valuable oil was produced—an oil already in extensive demand in domestic cooking, in the making of some of the most popular vegetable-oil soaps, and in numerous other fields where a pure and healthful oil is demanded. The seeds when ground produce a meal that is unexcelled as food for cattle and poultry. It is also one of the most valuable fertilizers to be found in the Southern States.

The products of the slaughter-house furnish another interesting illustration of the triumph of the utilitarian spirit. Here everything is now utilized—the hair as well as the hides, the bones, the blood, the horns and hoofs, and the entrails. Indeed, the parts of the animal that were formerly thrown away are said to yield a larger profit than the dressed carcass of the beef, sheep, or pig.

It would be interesting to continue our investigations of the utilization of the waste or by-products, but the story is one that would in itself require many chapters for its proper presentation; and the illustrations given are typical and sufficient to show how the spirit of the last century seized upon things long considered to be worthless and created from them wealth greater than Golconda's storied treasures.

## II. THE UTILIZATION OF NATURE'S FORCES.

From the by-products we now turn to the employment of Nature's subtle forces and her great reservoirs of energy for the benefit of man. It is only necessary to consider the vast commercial and manufacturing interests of modern civilization, and to notice how thoroughly they are dependent upon steam and electricity, to realize how the extensive utilization of some of Nature's forces by modern civilization has transformed the world in which we live. Yet the employment of

lightning and steam to do the work of millions of hands is by no means the only practical use that the last generation has made of the forces and motor power afforded by Nature, as will be readily understood if we turn from these handmaids of progress and utility to a consideration of the employment on a gigantic scale of the mighty waterfalls of the New World. The utilization of a part of the vast power of Niagara Falls and its conversion into electrical energy for furnishing light, heat, and mechanical power afford an interesting case in point. A still more ambitious undertaking is in progress at Sault Saint Marie, Ontario. Here many million dollars have been invested during the last five years in a gigantic work that, when completed, will have practically harnessed and utilized all the vast energy generated by the waters poured from Lake Superior into Lake Ontario. For untold ages the largest fresh lake in the world has poured its waters over the rapids at the lower end of the lake, without being of any practical benefit to man. Yet here is energy enough to supply ample power for thousands of industries dependent upon cheap power for their successful operation. It takes only about one one-thousandth part of the waters of Lake Superior for the operation of the locks of the great ship canal. The rest is at hand for the use of man for manufacturing purposes, and this is now being rapidly utilized. Moreover, its use is leading the practical, able, and daring promoters of the enterprise boldly to go further in their efforts profitably to employ waste products. A brief summary of what has been done here and a notice of some of the things now under construction will illustrate the utilitarian spirit of the nineteenth century, while furnishing one of the most interesting wonder-stories of industrial progress.

The company developing electrical energy from Lake Superior first constructed the largest paper-pulp mill in the world, the production of which already brings in over \$900,000 a year. The territory extending from the Falls to Hudson Bay is covered with thick and heavy forests of spruce, the stumpage of which was offered to the promoters by the

Canadian government at a very reasonable price. Here we find an enormous industrial plant almost in its infancy and capable of being enlarged and extended until it can greatly increase its output at a very small comparative cost. Though mechanical wood pulp is being here manufactured at a fair profit—as it brings \$30 a ton—the enterprising and practical management soon saw a way by which their revenue could be immensely increased, as chemically-treated pulp is worth about \$60 a ton. The company, therefore, next set to work to build the largest sulphite mill in the world, the product of which, it is said, will be a million and a half dollars a year. In the treatment of chemical wood pulp, sulphur is called for. This chemical greatly increases the cost; but in the great works of the Canadian Copper Company, one hundred miles distant, large quantities of sulphur are daily thrown off in fumes. The ore treated in these works contains nickel, iron, and sulphur. The sulphur, here and elsewhere in copper and nickel works, has always been treated as a by-product of which no account was taken, because it was supposed to be impossible to save it. The management, which had so successfully inaugurated manufacturing by the utilization of Lake Superior, determined to attempt the saving of the sulphur being thrown off at the nickel works. Accordingly, the most skilful experts were employed, with results regarded by the interested parties as sufficiently satisfactory to lead them to buy a nickel mine for the utilization of sulphur. They are also building reducing works, where they hope to be able to save the sulphur through their new discoveries. The company is also building a railroad through mineral regions, which will connect the mines with their works at the Falls. After the sulphur is extracted from the ore the company will have a ferro-nickel product that can be made into nickel-steel, and, since they are seeking to realize all the material at hand that promises rich returns, they have set about to make nickel-steel. They furthermore claim to have solved the problem upon which metallurgists and electricians have long been at work, namely, the economical reduction of nickel ore into

steel by electricity. All the hard cutting tools now employed on the company's property have been manufactured at their own works, which are being so enlarged that before long there will be one hundred furnaces of five tons daily capacity. Owing to the manufacture of steel demanding large quantities of iron, the company secured an immense tract of land rich in iron-producing ore, and is now successfully treating the ore in its own furnaces. Within five years the promoters hope to be using all the outflow of Lake Superior except what is required for the ship canal.

Here, then, we have an admirable, concrete illustration of one result of the practical or utilitarian spirit of the nineteenth century; yet it may be fairly said that work along these lines is in its infancy, and it is highly probable that at an early date the tide of the ocean will be so utilized as to generate electrical energy for the cities by the sea.

### III. LABOR-SAVING MACHINERY.

Turning from the success achieved by mankind in utilizing by-products and the long-neglected forces and powers of Nature, let us glance for a moment at the invention of labor-saving machinery. Here again we find ourselves in a wonder-world, presided over by utility, where science, discovery, and invention are the servants of mankind. It matters not in what direction we turn or through what field of activity we thread our way; everywhere the work that a century ago would have required a large number of toilers is now performed by a few hands. Let us begin with business and professional life. Here it would be thought that comparatively little labor saving could be wrought through inventions, devices, or discoveries; but if we remember the force of long-hand writers that was required to take down, even indifferently, the speech of a statesman or the sermon of a divine in the olden times, and now perceive an expert stenographer catching every word with perfect ease, and afterward not only reproducing it in clear and beautiful typewritten pages, but when necessary furnishing

several copies without repeating the labor, we see how even the march of improvements has come to the aid of man. But it is not until one tries to imagine how the busy business man of to-day would accomplish his work if he attempted to imitate his father in answering his correspondence in long-hand that we appreciate the debt owed by the modern business and professional world to stenography and typewriting.

In the great printing office, in the mills, factories, foundries, mines, and quarries, however, we find still greater triumphs in labor-saving devices and inventions. Take, for example, the typesetting machine, which is but one of the many marvels found in the printing house to-day. I remember how bitter was the cry that went up a few years ago, when in two of our great cities 2,500 men were thrown out of work in four weeks by the introduction of the typesetting machines, chiefly in the great newspaper offices; yet this was but one of hundreds of instances where labor-saving machinery has taken the place of human labor in the furtherance of the work of the world. The blowing of glass fruit jars by machinery was another cause for an outcry, as was the displacement of a number of scrub-women in some of the great office buildings of our leading cities by the introduction of machines devised for quickly cleaning the floors. It is worthy of note that in very many instances hard, irksome labor and sheer drudgery are to-day very largely performed by machinery, through the inventions and discoveries of the closing decades of the nineteenth century.

It is in the devising and making of labor-saving machinery that we are brought face to face with one of the most tragic phases of our present civilization. Through a fatal flaw in the ethical development of our people—a flaw for which the home training, the school, and the church are alike to blame, and for which the State is also largely responsible in that it has not appreciated the importance of maintaining self-respecting manhood or making its citizens patriotic by virtue of its showing a willingness to assist the helpless to help themselves—we find in many instances labor-saving machinery has

served to deprive thousands and tens of thousands of willing workers of employment, who have filled our cities, and in times of business depression our nation, with great armies of self-respecting citizens doomed to idleness and pressed remorselessly toward starvation, suicide, beggary, or crime through no fault of their own. Of course, the wonderful machinery, by the aid of which the work of ten or perhaps a hundred men is now performed by one individual, is not to blame, for it is potentially an unmixed blessing. But the low ethics that have prevailed throughout the various ramifications of society have rendered possible conditions that are a blight to civilization. It is variously estimated that the work which a century ago would have required a fourteen-hour day to accomplish can now be well done in a day of from four to six hours; hence, we are face to face with a condition pregnant with promise of brighter things. At no period in earth's history has it been possible to have all the legitimate wants of civilization well ministered to with such short days as to afford men and women ample time for growing upward, for developing all that is finest, truest, and most worthy in their natures, and for enjoying life. Thanks to inventive discoveries, to science, and to the spirit of utility, that time has now arrived and only waits on the awakening of the sleeping God in the individual, in society, and in the State.

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## ORGANIZED CHARITY.

THE writer is fully aware that it is much easier to find fault with existing abuses than to suggest a means of their correction. The majority of people have become so accustomed to believe in the necessity and efficacy of organized charity that they take the present system as a matter of course, and seldom stop to inquire whether or not it is working for the highest and best good of the recipients of its bounty. I do not wish to be understood as deprecating the work of organized charity as a whole. I believe that the University Settlements, the Salvation Army, and a few other societies that are placing the poor in a position to help themselves, are accomplishing much good, and that many high-minded, true, and noble men and women are engaged in uplifting and benefiting their poorer brothers and sisters. But outside these channels there is an element in charity that tends to pauperize and degrade people instead of uplifting and benefiting them. It was said by one of old that "charity covereth a multitude of sins," and so it does to-day—but not in the way that saying was meant. Many persons use charity as a conscience salve, hoping thus to atone for their unrighteous dealings with their fellow-men.

The world to-day is in far greater need of *justice* between man and man than of any charity offered as a sop for wrongdoing. The real charity of life must come through loving-kindness, and must have as its object the helping of others to help themselves. It is one of the great laws of life that *through giving we receive: as our giving is, so shall our receiving be*. All giving, then, that tends to convey to the receiver a real good benefits the giver also. But whenever the acceptance of a gift tends to lower the receiver's self-respect, or causes him to feel a sense of degradation, then such a gift reacts unfavorably on the giver.

When persons in need go to a Charity Organization to have

their wants relieved there is generally a long list of questions to be answered, references to be given, and a great deal of red tape to be encountered. And if the organization happen to belong to a particular religious sect, the applicant has very little prospect of success unless he be a member of that denomination. Charity is not dispensed in the name of Christ, but in the name of some particular church. If the organization happen to be non-sectarian, the questions asked and requirements demanded make it next to impossible for a sensitive person to undergo the ordeal. Some may say that "beggars should not be choosers"—that they should give thanks for what they get instead of finding fault with conditions. But that does not alter the facts, for frequently it is the brazen-faced beggar who receives the charity while the shrinking, sensitive person is rebuffed. In saying this I am stating a fact whereof I have personal knowledge.

Organized charity, in order to accomplish any great or lasting good, must have for its object—first, last, and all the time—*the helping of people to help themselves*. If it cannot do this, then the world were better off without organized charity. The holding together of soul and body is not enough; merely to supply one's physical wants for a day, a week, a month, or a year is not sufficient. The beggar as well as the millionaire has a soul, and one is just as precious to its Creator as the other.

If in the receiving of money, or any other material gift, one's independence and freedom and self-respect be so interfered with that the head cannot be held erect and eyes dare not look into eyes, then a wrong has been done by the bestower of charity that must be atoned for by him alone. The charitably disposed may not be able to give light and understanding to those in need, but charity should not come in to lessen the recipient's sense of manhood in its bestowal. If it cannot add to this sense, surely it should not curtail it. Whenever, then, there is giving contrary to the eternal law of right, the giver subjects himself to punishment equally with the receiver. The law cannot be violated without both getting wrong results.

Humanity is one—a body of many parts. The millionaire may be the head and the tramp the foot, but these must somehow be united by the heart. At present there is a great deal too much blood in the head and very poor circulation in the feet. This undoubtedly proceeds from weak heart action. When the heart is strengthened the blood should circulate evenly, nourishing all parts of the great whole. It will be found that, while the grand body of humanity has many parts, each part has a definite work to do; and, if anything interferes with that work, the part becomes weakened and diseased—the disease to some degree affecting the whole organism. It will also be found that the well-being of the entire body is conserved by each part performing its own particular function—that only as this operation is uninterfered with can the body be whole and free from disease.

The object of this illustration is to show that there must be a mutual giving and receiving; that organized charities should find some way of giving work of one kind or another to the unfortunates applying for aid; that the giving of money without receiving some equivalent tends to make parasites of human beings; that the charity organizations are responsible for the pauperizing of many people—for perpetuating a condition of slavery that is intolerable to the most highly civilized thought of our time; and that old ways and methods must be discarded and new means adopted for the moral and mental elevation of the men and women that look for assistance to those above them in wealth and knowledge.

Society, the State, and the nation are responsible for the existing order of things. There are in this country tens of thousands of able-bodied persons out of employment. These masses must be fed, in one way or another. If they could obtain work, the labor would help to strengthen their physical bodies and also develop their minds; but if they have to live on what they receive from charity organizations or private individuals, then there is little hope of civic progress. An unholy system that makes it possible for certain persons to own thousands of times more of this world's goods than they need

or can possibly use carries within itself abject poverty. One extreme begets the other—the millionaire is father to the tramp. Then let society and the nation, who are responsible alike for the wealth and the poverty, find some way whereby the poor shall have an opportunity to work, and shall receive sufficient compensation at least to hold soul and body together. Let our social leaders and legislators cease making slaves or beggars of people through their unrighteous charity. Let them not heap up judgment and condemnation upon themselves, but rather try at least to do something that will make human existence for countless thousands less of a struggle for bread than it is at the present time.

This nation has been likened to a great family of which the highest and lowest members form equally important parts: a Republic in which each works for all and all work for each. It is only so in name, however, as the statement is a mere figure of speech. A family that would fail to care for its weakest members—one wherein the strong would prey upon the weak—would hardly be considered worthy of the name. A nation that allows its sons and daughters to starve, when it might provide them with sufficient *work* to insure a comfortable living—and at the same time sends thousands of its wage-earners to the distant parts of the earth to slaughter their brother-men—can hardly be regarded as having any of the paternal or maternal instincts awakened. "But," says some one, "paternal government is infernal!"—and our so-called wise men take up the cry and harp upon it, attempting to show the dire injuries that would result to the nation in helping its own. It is right, it would seem, to take fathers and sons from their homes and give them employment in fighting men, but it is not right for the government to engage in any extensive operation wherein tens of thousands of men might be employed, not in a way that would carry distress or sorrow into the family life, as war does, but by which every participant would be benefited.

Think of the great amount of good that could be accomplished by an army of peace—in building good roads, in devel-

oping waste land, and in doing many other things in which the government could profitably employ men! Such public enterprise would strengthen our country and develop our commerce in a way that neither war nor any other agency could ever approach. Organized charity would not thrive to the degree that it now enjoys, and non-producers would not draw fat salaries in dispensing it. There should be no need or toleration of nine-tenths of such organizations as now exist. If every one able to work were given an opportunity to do so, those unable to work might perhaps be cared for by organized charity; but in all probability they would be cared for by members of their own families, who would doubtless earn sufficient to support themselves as well as those unable to work.

The "organized charity" needed by the world to-day is a righteous distribution of its wealth. Not that it should be divided equally among all its people (because if it were it would not remain so for any length of time), but that the laborer is entitled, first, to work, and secondly to a fair proportion of what he produces; and if in his service to humanity he become infirm or unable to work, then his past labor should entitle him to be cared for in some way other than by a charity organization.

If the fear of future poverty could be taken out of the minds of people, a great burden would be lifted, because man's fears are often greater concerning the future than the present. If the apprehension of poverty were removed it would tend to stop the mad scramble after wealth that causes many to lose the highest and truest aims in life. The thought of future poverty and dependence stifles the vital energies and tends to make many useless members of society; but if one could be *assured* of work, and of enough material means to keep him in comparative comfort when unable to work, there would undoubtedly be a radical change in the minds of many regarding the advantages that might accrue from vast accumulations of wealth. If organized charity is going to become of real service in life, let it try to secure for the unemployed work that will develop them both

physically and mentally. The men and women that are employed will lead more moral and upright lives than those that are unemployed. Society, the State, and the nation will be uplifted, strengthened, and redeemed when every one is engaged in some service that makes for the good of all.

"It is better to lend than to give," says a writer in the Talmud; "to *give employment* is better than either."

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## THE KEY-NOTE IN MUSICAL THERAPEUTICS.

THE effect of music upon the mind is generally recognized as beneficial in that it awakens pleasurable emotions, soothing or stimulating centers of thought and feeling until the entire being is lifted into a higher state. That this effect is communicated to the body is admitted, but the musical means employed in such communication and the extent of physical benefit derived have not been sufficiently investigated either by musicians themselves or by scientists. The action of music upon the nervous system is patent to any observer, but the specific application of tones and chords for therapeutic purposes presents an entirely new field of inquiry.

Before discussing the real question at hand, it may be well to consider the healing action of music in a general sense. Our attention is first attracted by its uplifting influence. The mind weighed down by inherited ideas of disease and pain, literally sunk in the body and subject to its every mood, is gradually lifted into a freer, more independent position. Thought ascends; its vigilant examination into bodily conditions is stopped; its grip upon petty aches and ills is shaken—vibrated out of the physical into the spiritual. In this exalted state we become insensible to pain, which enters only into the consciousness of the *physical* self. All discordant elements are forgotten in the harmonies by which we are swayed. While in the altitudes of music we are practically asleep to all our ills. The physical self is abandoned—left to work out its own salvation. This is Nature's opportunity. Relieved from our meddling scrutiny, unhampered by the personal will, she sets her own recuperative forces into operation, and these, acting in unison with or rather *constituting* the Divine Will, accomplish our restoration to health. Thus *music*, by enticing us away from our infirmities, by elevating consciousness to a higher plane, entralling us with beauties of spiritual suggestion, opens the door for the cure.

Upon returning to the lower plane of consciousness at the cessation of the music, it is as if we return from a visit to find our bodily home purified—made comfortable once more. From our experience in the upper realms of music we have discovered that pain and disease have no essential hold upon us, and knowledge of our ability thus to rise above them shakes belief in their dominant power and affords strength to master them upon their own plane. The peace gathered upon the heights of music is so much capital held in reserve against encroachments of inharmony.

In respect to its uplifting power, music does not differ from other arts; indeed, anything that lifts us into at-onement with our diviner selves tends to destroy the idea that pain and disease are fixed conditions of human life and opens the way for a freer movement of those forces which ever work toward health and harmony. A smile on the face of a friend, an absorbing occupation, or a fine painting will produce mental and spiritual elevation; but *music*, with its infinite variety of chord connection, its suggestive modulations, its rhythmical flexibility, tone coloring, and emotional pictures, its melodies and movements in minor and major, penetrates every nook and cranny of our being. It thrills every fiber; it floods every cell, and, touching the springs of the soul, frees it from fleshly bondage to wed it with the spirit of peace eternal.

Drawing a step nearer to our principle theme, but still under the same general view, let us now inquire how music actually heals the physical organism. We are now confronted by the opposing concepts, health and disease—or harmony and inharmony. Health may be defined as a state of *harmony*, a mold or channel through which music flows. Disease may be defined as a state of *inharmony*, or mold for noise. We now have health (or music) against disease (or noise). The vibrations of the former are regular and periodic; those of the latter are irregular and non-periodic. The healing action of music is a process of substitution. Music is the health, and noise the disease, of sound. Music-health is *substituted* for noise-disease. Reversing a previous statement, we may now affirm that music is a

condition, a mold or channel for health, and likewise that noise is a mold for disease. In brief, then, music heals by substituting its own state of harmony for that state of mental and physical inharmony called disease. The distinction between *noise* and *music* is of especial importance, since healing power depends upon regular, periodic vibrations.

We are now ready for the affirmation—Music affects the body through the mind. The healing quality of a musical tone lies in the impression produced upon the mind by the regularity of the vibration. Repetition of the vibratory period, forming pitch and giving to the tone a smooth, undisturbed character, acts upon disordered mental states similarly as oil upon the waters. The mind is so shaped by the sonorous groove or mold in which it is cast as to assume sympathetically the three characteristics of the tone—force, pitch, quality. When the mold is withdrawn the impression is retained. Frequency of treatment naturally strengthens the impression until mental states of *irregular* vibration constituting noise, or disease, yield to *regular* vibrations constituting music, or health. The body, echoing every fluctuation of thought, gives evidence of the change by improved circulation and sequential regularity of its various functions. It is naturally to the *nervous system* that the mind at once transfers the smooth periodic pulsations by which it is influenced. During the process of diffusion that takes place in the brain, music becomes *transmuted*, and each set of nerves, adapting the musical energy to its own requirements, acting as interpreter of music, conveys its healing principle to the devitalized parts of the body.

"For every *mental shock*, every awakening of consciousness, every *mental transition*, there must be a *concomitant nervous shock*; and as the one is more or less intense, so must be the other." "When an impression is accompanied with feeling, the aroused currents diffuse themselves freely over the brain, leading to a general agitation of the muscular organs as well as affecting the viscera. It is not meant that every fiber and cell can be affected at one moment, but that a spreading wave is produced sufficient to agitate the body at large." "States

of pleasure are connected with an increase, states of pain with an abatement, of some or all of the vital functions." (Alexander Bain.)

"I have no doubt whatever that the acknowledged influence of music over the insane might be far more extensively used; indeed, if applied judiciously to a disorganized mind, it might be as powerful an agent as galvanism in restoring healthy and pleasurable activity to the emotional regions." (Reginald Haweis.)

Since *every* musical tone possesses an inherent property of healing, we are led to inquire whether one tone has virtue more than another, or whether all are equally endowed. Again, what special group of tones, arranged melodically or harmonically, is peculiarly adapted to the rejuvenation of diseased parts? These questions enter into the nature of Music as an Art, and can find their solution only in the natural relationship of tones and chords. Key, rhythm, and movement also enter into the matter, but more than all this is the great *meaning* of music, which underlies and pervades all tone combinations—the very spirit of harmony breathing through its envelope of sound. While engaged with the *material* vibrations of sound, we should never lose sight of the *spiritual* purpose with which all real music is surcharged. By this we mean, technically, musical expression, *i. e.*, what music is saying to us. It is the thought and emotion running along between the notes, inflating them to the bursting point, using them as tools of expression, making them serve a larger principle than mere vibration—this it is that most deeply concerns us and forms the vital essence of healing.

To facilitate progress along the lines of these pertinent inquiries, attention is now invited to the consideration of music from a *specific* standpoint. The query, Does one tone possess healing virtue more than another? bears directly upon our theme—the Key-note. All music is centered, or pivoted. Upon the pivot the swing or rotation of harmonies depends. At this central point dwells the composite or concentrated principle of harmony. There is nothing in the extension, the ramification, which is not in the nucleus; and for this reason the relation

that all musical tones, within the given radius of a key, bear to one another and to a common center is most *intimate*—a relation that may indeed be said to constitute tonal consanguinity. While it is perfectly logical to assert that all conceivable music in our system of rotary keys must have a definite dominating center (yet to be discovered), we will for the present content ourselves with the center of one key. For instance: the key of C is pivoted upon the tone C, and all the harmonies naturally belonging to this key revolve around this central tone. There is nothing in the outlying harmonies of the key that is not contained in this one tone. C is the vibratory embodiment of the entire key—the mother tone whence the seven essential tones of the scale are born. Without entering further into explanations of this scientifically demonstrated fact, it suffices to add that all the elements that go to make up any key are contained in the over-tones of the fundamental, or key-note.

All musical compositions derive their artistic worth from the manner in which their various melodies and harmonies conform to the requirements of the Key-note. It is the law of tonality that makes music an art, and according to this law every tone renders obedience to the mandates of the Tonic tone, or Fundamental. What is true of musical compositions is also true of musical instruments. These are constructed with reference to a *particular* key and Key-note. We speak of the B-flat clarinet and cornet, the D flute, etc. All bodies that emit a musical tone follow the law of tonality in that the sound produced is always the Tonic, or Key-note of their being. Thus a bell always produces the same key-note, likewise a tuning-fork, or a piano or violin string, provided the tension remain unaltered. It is, then, a characteristic of all sonorous substances that they shall identify themselves by vibrating at a definite pitch. Of course, such identification is more pronounced by adding force and quality to pitch; but when any object vibrates with sufficient rapidity to produce a musical tone, it will, other things being equal, always vibrate at the same pitch. Thus the Key-note of the object is determined by the *number* of its vibrations.

Now, since the law of tonality has jurisdiction over all music-

producing organisms, human beings are not exempt from the law. The larynx, which is the musical instrument of the body, is constructed with reference to a particular key and Key-note. Every tone of which the larynx is capable is intimately related, and therefore obedient, to the mother tone; but, more than this, every atom of the physical organism is similarly related and obedient. The vibrations of the vocal cords are not limited in their effects to the larynx, but, reenforced by adjacent resonant cavities, are communicated to all parts of the body. Following the law of tension and acting as a membranous substance, the vocal ligaments must have their *proper* tones based upon a fundamental. The stroboscope reveals segmentary divisions of the ligaments and shows a striking coincidence between their movements and the action of membranes; but, setting analysis aside, the larynx speaks for itself. The Key-note is actually heard by the trained ear; it is discerned amid the various inflections of the speaking voice even as a great truth is discerned in a mass of illustrations or distinguished just as is the root from other parts of the plant. Few persons are aware that in *speaking* the vocal cords touch certain definite pitches, which relate themselves naturally to a fundamental pitch. The fact is, the principles of music apply just as stringently to *speech* as to *song*; indeed, speech is song if we will but *listen*, although not so pronounced in character. It is the consonant sounds that confuse. All vowel qualities of tone are essentially music, and it is through these that the Key-note finds expression.

But while investigating the *material* source of the Key-note, we must not forget that its real origin is back of the larynx—back even of *vibration*, in the material sense, being coeval with the spirit, or Eternal Ego. The music we make comes from *within*, being inherited from the Master Musician—the great Composer of universal harmony. On the spiritual plane we are musically related to those centers around which the harmonies of the macrocosm swing their majestic weight of tones; our sense of music is derived from this relationship. The particular intuition in our musical consciousness which impresses us with a sense of our own individual Key-note is founded upon the



truth that our Key-note is identical in pitch with one of the tone centers in God's universal system of keys. We are known in the Music Divine by our *Key-note*. This is the link between the finite and infinite harmony—the "common tone" between man and God.

The argument may be advanced that the art of music is purely *man's* creation, and that the Key-note is simply a necessary condition of the *art*—a central idea, around which artistic perceptions are grouped and without which the development of music would have been impossible. Such limitation of the Key-note, however, is inconsistent with the very foundation of art itself; for art is essentially the imitation of Nature. The principles of music as conceived by *man* are merely a reproduction upon a limited plane—a counterfeit of those principles which have always existed in the universe and which are the *a-priori* elements of Divine harmony. The so-called development of our musical system is the result of a gradual unfoldment of human consciousness into a knowledge of that tonal relationship which God created in the *beginning* and stamped upon vibrating matter. If music have no *Divine origin*, where is the mystery of it? Its very power to charm, uplift, and heal depends upon a source above and beyond any *human* conception; and all attempts to dwarf it down to the material plane of purely physical vibration—all attempts to narrow it to the creative faculties of *man*—must tend to lower and belittle the art whose sweetness, grandeur, and glory ever constitute an upward-drawing force, harmonizing and spiritualizing uncouth, discordant humanity.

Having postulated the existence of the Key-note upon both spiritual and material planes, let us now proceed to investigate its healing properties. This leads to the question, How do we really *hear* music? Ordinarily we say that sound-waves striking the tympanic membrane excite the auditory nerve, which communicates its vibrations to the brain, where the mind builds up the sensation of sound. Helmholtz has shown that the hair-like elastic bodies found in the extension of the auditory nerve (of which bodies there are about three thousand) respond to

different pitches of tone; i. e., each little fiber is excited by that number of vibrations to which it is tuned or with which it naturally sympathizes. Two hundred of these fibers are beyond musical limits, so that, out of the three thousand, twenty-eight hundred are divided among the seven octaves of music, making four hundred for each octave, or thirty-three and a third for each semitone. "When a simple tone is presented to the ear, those Corti arches which are nearly or exactly in unison with it will be strongly excited and the rest only slightly or not at all; hence, every simple tone of determinate pitch will be felt only by *certain* nerve fibers, and simple tones of *different* pitch will excite *different* fibers." "The sensation of different pitch would consequently be a sensation in different nerve fibers."

From this it is clear that each one of these fibers is tuned to a definite pitch, or, in other words, that each one has its individual Key-note and is excited only by the vibrational *number* of its Key-note. The answer, then, to the question, How do we really hear music? is, that we hear it by the sympathetic vibration of the auditory expansion, and, further, we hear it through a series of Key-notes. Thus the very principle of the Key-note is demonstrated by the ear itself.

Since music is heard by the law of sympathetic vibration in the peculiar manner described, it follows that the fundamental tone, characteristic of the entire human organism, must produce a very marked impression upon the mind. The mind, having a predisposition to sympathize with this tone, would be most quickly roused by it from a state of apathy or irregularity caused by discordant thinking. The subtle influence of one's Key-note is due to the authority invested in it. It is a summons that the mind must obey by reason of the harmonic order of its being. The sound of the Key-note deepens and strengthens consciousness of musical kinship with God and restores to the mind the sense of tonality, or that faculty which refers all mental processes to a common harmonic center. When irregular vibrations afflict the smooth-running melodies of thought, consciousness of the Key-note becomes enfeebled. This is manifested by the voice, which is often weak and either below or

above its normal pitch. Therefore, to heal mental disorder, the tonic tone should be presented to the ear for recognition; and as its dominating power is felt by the shifting maze of noisy, non-periodic vibrations, they resolve themselves into regular forms, leaving the mind free to bask in its native music. Of course, the body, being in close touch with the mind, shares its relief and falls into tune.

Sympathetic vibration may be illustrated thus: If the loud pedal of the piano be depressed and a given tone sung forcibly against the strings, those strings which are in unison with the tone will be set in sympathetic vibration, so that the vocal note is thereby reproduced. Reversing this experiment, the given tone, when sounded on the piano, excites those Corti fibers which are tuned to the same pitch, and the mind, translating vibration into sensation, reproduces the tone. Now, it is clear that if the tone sounded upon the piano be the Key-note of the listener, the *sympathetic response of the mind*, predisposed to cognize its own fundamental, must be most immediate—also most efficacious in harmonizing discordant elements. The use of the Key-note, then, as a basis of Musical Therapeutics is *justified* not only by the synchronous tendency of the ear and mind to vibrate sympathetically with all musical tones, but by a *predisposition*, a *special favor*, an innate sense of *kinship* resident in the Musical Consciousness. That the vocal ligaments themselves could be made to manifest synchronism with their key-note, I have no doubt—just as the lowest proper tone of any membrane can be made to exhibit itself to the eye by means of sand figures.

With regard to differences of pitch, as affecting the force and immanent virtue of the Key-note, it should be observed that such differences are not so great as to prevent mental recognition of the ruling vibrational number. The musical conscience is keen in distinguishing depressions or elevations of tone. Every tone may be said to move in a vibrational orbit, so that the tone percept is the same whether the sound be a trifle sharp or flat. If the tone A be lowered or raised slightly, it is still perceived as A, and this perception continues until altered either

by the encroaching idea of A flat or A sharp. Perhaps the limit of tone identification lies close to the quarter tone division of semitones; but even at the quarter tone limit the influence of the Key-note would still be felt by the mind, and A in this case would remain A as distinguished from its chromatic neighbors. As a matter of fact, the extremes of pitch standards (concert pitch excepted) seldom exceed a quarter of a tone; for the basis of musical pitch founded on C (32—33) renders any further difference impracticable. True, the sensation of musical tone first enters consciousness at about thirty vibrations, but the figures quoted for C have received both scientific and artistic sanction. According to these figures, the extremes of pitch for *middle C* are respectively 256—264. Now, if C, at or between these vibrational limits, be your Key-note, your mind would recognize it as such and be thrown into a state of synchronism. Says Helmholtz:

"When the pitch of the original resonant body is not exactly that of the sympathizing body or that which is meant to vibrate in sympathy with it, the latter will nevertheless often make sensible sympathetic vibrations which will diminish in amplitude as the difference of pitch increases; but in this respect different resonant bodies show great differences, according to the length of time for which they continue to sound after having been set in action by communicating their whole motion to the air. Bodies of small mass which readily communicate their motion to the air and quickly cease to sound, as stretched membranes or violin strings, are readily set into sympathetic vibration because the motion of the air is conversely readily transferred to them, and they are also sensibly moved by sufficiently strong agitations of the air, even when the latter have not precisely the same periodic time as the natural tone of the sympathizing body. The limits of pitch capable of exciting sympathetic vibrations are consequently a little broader in this case."

On the strength of these statements, the vocal ligaments, possessing as they do the characteristics of both strings and membranes, may be excited into sympathetic action by the sound of their fundamental, even if the latter is not precisely synchronous with their own natural tone. Doubtless the tympanic

membrane is subject to similar conditions. Since sympathy depends so largely upon elasticity of the vibrating substance, the *mind*, presenting a most subtle, delicate, and elastic medium, must be peculiarly alert in responding to its own Key-note, whatever be the variation of pitch between the extremes mentioned.

The establishment of the Key-note as a foundation for musical treatment of disease involves the association of all those tones which are most nearly connected with it, and out of this association are derived those chords which belong to the key. Of the chord formations adapted to musical healing, the tonic chord stands first in importance by reason of its origin in the tonic tone. It is not my purpose to enter into any extended discussion of chord cure, but a few general remarks will suffice to show the healing properties of certain tone combinations. The effect of the major triad is decidedly brightening and tends to promote a cheerful frame of mind. The harmonic reason for this lies in the interval of the major third, which in our equal temperament possesses a stimulating quality, giving a bright, even brilliant, character to the chord. The minor triad, on the other hand, produces a dull impression owing to the interval of a minor third, which is naturally subdued and even somber. Minor triads, however, offer an excellent soporific in cases where the nervous tension of the patient requires relaxation. A skilful blending of both major and minor harmonies within the jurisdiction of the Key-note is highly beneficial to the nervous system, since the acceleration and retardation of thought-currents and also the expansion and contraction of emotional centers become regulated thereby, conforming to the normal flow of the music.

MM. Alfred Binet and J. Courtier, in their experiments with music on respiration, discovered that musical sounds, chords and music in general as a sensorial excitation, aside from all emotional suggestion, cause acceleration of respiration, increasing with the rapidity of the movement, without affecting the regularity of the breathing or augmenting its amplitude. The heart is influenced in like manner. These authors further state that

music in the major mode is more stimulating than music in the minor.

In the use of music as an analeptic, temperament should receive careful consideration. An allegro movement would not be suitable for a highly-strung nervous organization; neither would an adagio meet the requirements of a lethargic temperament. Tune and rhythm are important factors in the music cure. Musical *expression* is a vital element of the question. Tempo, accent, crescendo, and diminuendo all exert a potent influence; but in all cases and under all circumstances, whether the music be melodic or harmonic in form, the Key-note should be closely adhered to and kept sounding in the ears of the patient. It is only by means of this dominating center that convalescence through music is possible.

I have been often asked why music as it stands, as it is ordinarily heard, is not healing in its influence. So it is, in a general sense; but so, in a general sense, all kinds of food are nutritious. Some kinds, however, are more directly nutritive, being better adapted to the needs of one individual than of another. It is selection in music, as in food, that determines results. Musical tones feed us according to our demand for the kind of aliment they contain. Under diseased conditions of the system, the ear, like the mouth, should be inhibited from receiving whatever tends to augment the disease. There is diet in music, and it is time that we should learn to select, from the great mass of tones presented, those most necessary and helpful to our individual systems. The extent to which music may be employed as a healing agent depends largely on one's sensitiveness to musical impression. It is safe to assume that the average man easily distinguishes music from mere noise, and that in proportion to his power of discrimination will be the amount of healing he derives. Since music acts upon the nerves, there is no logical reason why it should not reach many forms of disease. The one great fact we are learning in these advanced times is that the more subtle the therapeutic agent the more readily will disease yield to its power.

While music as expressed through our equal temperament



still retains its pristine charm and healing virtue, it cannot be denied that were it allowed full sway—permitted its legitimate expression through the Just and Natural intonation—its therapeutic value would be greatly enhanced. False and unnatural tone relations, however cleverly concealed by equal distribution, cannot do otherwise than cramp and limit the harmony seeking outlet from the spiritual into the material. It is hoped that in the near future the tuning of musical instruments will be made to conform to the just and natural relations of all musical tones, so that the piano, organ, and similar instruments of fixed tones may be used to better advantage for healing purposes. Meanwhile, ways and means should be contrived to utilize the divine essence of harmony by the employment of special musical formulæ based upon the Key-note.

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## THE ARMY CANTEEN.

THE question of regulating the use of intoxicants in the army by providing for their sale under certain restrictions in the canteens or post exchanges at the forts and stations occupied by troops has of late been widely and earnestly discussed. A successful attempt has been made under the lead of the advocates of total abstinence to obtain legislative action to prevent their sale in all places under direct military control. A law was enacted in March, 1899, which some supposed would have this effect; but it was interpreted to go no further than to forbid the detail of soldiers to make sales, and to prevent the sale by unauthorized and irresponsible persons on military premises, but not to prevent the employment of civilians to sell in the canteens. This interpretation has been vigorously attacked, and President McKinley has been severely criticized and blamed for accepting it, and also for having refused to make an order by virtue of his authority as Commander-in-chief entirely prohibiting the sale of intoxicants at all military stations. Not alone the political Prohibitionists, but the governing bodies of several of the prominent religious denominations, have taken strong ground in favor of such legislative and Administrative action. Some even went so far as to attempt to start a crusade of prayer for the defeat of Mr. McKinley at the recent election on account of his failure to enforce their interpretation of the canteen enactment.

There is a growing demand for sober men in all walks of life and in all business occupations. Railways will not intrust their trains to men that will drink while on duty, and the same is true of many other enterprises in which large numbers of men are employed. The writer is not a very old man, but he very distinctly remembers a condition of which the younger people of the present generation have had no experience. Rum,

brandy, and whisky were as staple articles in every stock of groceries as sugar, tea, and tobacco. The householder who did not keep liquors in his house and offer them to his guests in the ordinary course of hospitality was the exception rather than the rule. Clergymen were expected to test the quality of the wares that graced the sideboard, and were often compelled to limit the number of their calls in an afternoon or take the risk of reaching home in a condition not creditable—or which would not now be creditable—to their calling. Alcoholic beverages flowed freely everywhere, and were part of the rations of both the army and the navy. The tavern was the principal place where liquors were sold to be drank on the premises. One will look in vain in the editions of Webster's or Worcester's dictionary printed more than thirty years ago for a definition of the word *saloon* that will describe a place where the sale of drinks is the central interest. The thing existed in some places, and was locally known by its present name; but the earlier temperance literature inveighed against the *tavern* instead of the *saloon*. A popular religious story published fifty years ago for use in Sunday-school libraries narrated without disparagement and as a proper action that the clergyman calling on a parishioner on a Sunday afternoon gave a little girl a piece of money and sent her to the public house to fetch a pitcher of ale.

Much has been accomplished to change these conditions for the better. The sale of intoxicants has been to a great extent excluded from grocery stores and hotels, so that those opposed to their use need not go or send their children to places where liquors are sold. The use of beer and other mild beverages has increased and the sale of ardent spirits has diminished. The growing disrepute in which the liquor business is held, and the growing demand that those who fill places of responsibility shall be sober men, also show an improved public sentiment.

How has this vantage-ground been reached? Several causes may be mentioned that have combined to this end. The greatest credit is due to the ceaseless energy of temperance

workers, who have been insistent at all times and places in presenting the evils of the drink habit and the benefits of sobriety. They are usually men of high aims and noble purposes, and wield a large influence for a time by their persistence and plausible arguments. They are also too often men of narrow views, who do not see all the bearings of the methods they advocate. Singleness of purpose produces an immediate appearance of success; but permanent results can only be made certain by establishing broad foundations.

Every community is periodically stirred by these indefatigable workers; legislatures are importuned to make more stringent excise or prohibitory laws; churches are urged by persuasion, argument, and even ridicule to exert their influence in favor of the reform. Failing to bring the churches to abandon all other moral and religious work and devote themselves exclusively to this, numerous temperance societies and secret orders have been formed and have furnished mediums for the diffusion of literature and for securing audiences for lectures. In all these and other ways the matter has never been allowed to rest, and public opinion has been molded and directed. Legislatures, always sensitive to waves of popular feeling, have in many States at one time or another enacted prohibitory statutes—in most cases to repeal them a few years later. Where not repealed, and even where embodied in constitutional provisions, these legal restrictions have tended to become a dead letter. So far as legislative action is successfully enforced against the sale of alcoholic beverages, it has followed rather than led public opinion; and their use is prevented only in communities where a decided majority not only preach but from choice *practise* total abstinence.

One factor in the changed attitude of the public toward the traffic has grown indirectly out of the internal revenue laws by which it is heavily taxed. Whisky can be very cheaply made from grain, and when its manufacture is free there is little inducement to adulteration. Under present laws the price to consumers is raised so high by taxation that adulteration becomes too profitable to be resisted. The use of

drugs under the name of whisky and brandy rapidly increases the injurious effects of these drinks and makes them manifold more dangerous to the health and sanity of the imbibor. It is difficult to carry on illicit distillation without detection; but an imitation can be concocted of drugs at very little risk. These consequences of the internal revenue law on the price and purity of strong drinks have been produced within the last forty years—a period very nearly covering the time within which temperance efforts have been fairly successful, though several States had enacted and repealed prohibitory laws a few years earlier.

The keen competition in all commercial enterprises, and the narrow margin of profits in trade and manufacture, make indispensable a clear head and an unimpaired intellect in every business man. Quotations of the markets of the world are daily in the hands of all who will scan them. Every condition that affects production, transportation, or consumption is daily reported and must be constantly watched. Hence, the man who stupefies his brain with even the purest of liquors will soon find himself distanced in the race for fortune.

Closely allied with this is the immense influence of a complicated network of railways traversing every section of the continent. Trains are running at different rates of speed on intersecting tracks, and in opposite directions on the same track. So numerous are the trains and so many causes interfere with the regularity of their work that it becomes impossible to rely on time-tables alone to secure efficient service and exemption from accident. Every train is watched, controlled, and directed by telegraph, and nothing but the most sleepless vigilance can prevent frequent disaster. Entire freedom from the fumes of alcohol has therefore become an imperative condition of employment in the railway and telegraph service.

A little reflection will convince any one who has studied the history of temperance reform in all its aspects that a very small part of the change in public sentiment and practise has been produced by legislation. Americans are too ready to

believe that the enactment of a law is the first step in any reform; while the truth usually is that there is no reformatory value in the law itself, but only in the agitation necessary to secure its enactment. Indeed, the sense of satisfaction in the victory supposed to be accomplished that is felt when the law has been passed, and the natural reaction that follows every strenuous exertion, lead to neglect in enforcing the legal remedy, and it is soon repealed or becomes a dead letter.

It is the merest commonplace to say that no man can be made moral by law; the attempt has invariably resulted, as it must always result, in tyranny and oppression. The majority of the men who enlist in the army have been accustomed to a moderate use of intoxicants, and enlistment does not put an end to the cravings of habit. The army post is not a prison, nor are the soldiers prisoners; and they cannot be kept constantly within its limits. Places for the sale of liquor and for every kind of dissipation will spring up in the neighborhood, unless provision be made for a reasonable indulgence of the tastes of the men within the jurisdiction of the army authorities. It goes without saying that the drinks furnished by these outside and irresponsible persons will not be of the best and purest quality, and that excesses will not be prevented as in the army canteen. It is to meet these evils that the canteen has been introduced. The post exchange is the soldiers' coöperative store, in which the government has no financial interest. The capital is furnished by the soldiers themselves, and supplies such as soldiers need or crave are sold at cost, or as nearly so as is practicable. The advantage of this over the old methods of sutlers and post traders is plain. The canteen is a department of the post exchange constituting an enlisted man's club. Rooms in or near the soldiers' quarters are set apart for this special purpose and furnished with reading matter and billiard tables and other games, but every form of gambling is absolutely forbidden. Among the refreshments furnished are beer and light wines; the sale of all spirituous liquors is and always has been strictly prohibited.

Adjutant-General Corbin, from whose report on this sub-



ject these facts have been taken, says: "In the beginning I opposed the canteen, but was brought to its support by the overwhelming evidence of its beneficial result upon the morals, health, and contentment of the service." He also says that almost every company commander has reported in favor of the exchange and canteen as an effective temperance measure. This favorable result is shown in fewer trials by courts-martial, in the decreased number of desertions, and in the improved health of the men. In the period of six years since the establishment of the canteen, compared with the period of six years immediately preceding it, the number of convictions for drunkenness and offenses originating therefrom has diminished by fifty-seven per cent.; and the number of men that have deposited their savings with the government for a similar period has increased by fifteen per cent. In 1899 the expenditure of each officer and man reached an average of fifty-eight cents a month, or less than two cents a day. "The army of to-day," says General Corbin, "is the most abstemious body in our country. The anxiety of temperance people outside the service about the army is unwarranted. As compared with any community at the present time anywhere in civil life, the army is a model temperance society—a practical one; one where reasonable abstinence is the rule, and where excesses are the exception; a society whose precepts no less than its example could be followed by all people in safety and sobriety."

(The use of intoxicants in the army might be prevented by making total abstinence a condition of enlistment, and by making dismissal from the service the penalty for such use. But would this course be wise? In view of the prevalence of drinking customs among all classes and in all countries, would such a course be practicable? The pay of a private soldier—from forty-three to sixty cents a day, Sundays included—is hardly a sufficient attraction to secure enlistment in a service that would require the abandonment of a habit so deeply entrenched in the hereditary constitution and tendencies of humanity as the one under consideration. If we can believe, notwithstanding the facts of history, that any one is wholly free from this

taint, we must concede that the number of such is small, and the chance that persons so well born as to be free from it will consent to serve for fifty cents a day is too small to be regarded. The law declared to have been given by divine inspiration through Moses did not require absolute purity of life, but conceded something to hereditary hardness of heart. The gospel says that the rule in the kingdom of heaven is more strict; but it nowhere says that civil rulers can enforce this higher morality. The kingdom in which the higher law must prevail is expressly said to be not of "this world." The civil law cannot come into the court of conscience and enforce by physical penalties the observance of pure morality; as already suggested, such an attempt would unerringly lead to injustice and oppression. Nay, it would lead to unblushing hypocrisy; for no court or officer could be found who would not be disqualified by some moral taint for casting the first stone. The consciousness of this unworthiness and the unwillingness of upright and honorable men to become parties to the punishment of faults no greater than they themselves commit have no doubt much to do with the tendency of this sort of legislation to become a dead letter. A man of narrower mind will look with leniency on his own pet vice—"the sin which most easily begets him"—and will exaggerate the fault of his neighbor; and the most demonstrative advocates of total abstinence are too often so addicted to the "pleasures of the table" as to be slaves to dinner pills and pepsin. They—

"Condone the sins that they're inclined to,  
By damning those they have no mind to."

In the present state of humanity, the only practicable law to enforce total abstinence would be a repeal of the natural law of fermentation, thus making the manufacture of alcohol impossible. In default of the power to do this, it were well for church-members and all temperance workers to purge from their own eyes the beams that dim their sight and then use earnestly all moral influences to cast out the motes that trouble the eyes of their brothers. It is far from clear that true Christian wisdom requires or justifies a resort to extreme

measures to enforce total abstinence in the army. The evidence shows that the present practise, as compared with that which preceded it, is decidedly in the interest of temperance, and that the exclusion of beer from the post exchanges will be a long step backward. The canteen says in effect to the soldiers: "Gentlemen, we do not advise or encourage the use of intoxicants, but you are free moral agents, and if you must drink, and will be satisfied with beer and wine, we will furnish them here, and leave you without excuse for seeking the fiery poisons and adulterations furnished by outside saloons." Taking into consideration all the factors that enter into the problem, this solution appears both wise and righteous.

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## THE CRIMINAL NEGRO.

### III. SOME OF HIS CHARACTERISTICS.

#### 1. *Social Life.*

SOCIAL life is important in any consideration of crime, for it is through this channel that criminal impulses often find expression. The social life of the negro is comparatively crude and simple. I need scarcely say that he is excluded from all social relations with the whites. The line is more closely drawn now than in slavery days. Now it is seldom that whites are present at a negro marriage, burial, or feast; then it was the rule. Upon some of the old plantations, where the semblance of slavery is strongly marked, there is some intermingling, but it is with regret rather than pleasure. The negro has not yet attained the position where he is regarded as a man rather than as a negro. Indeed, this feeling is so strong among the older Southern whites that the negro is still required to come to the back door and stand uncovered in the kitchen. While the whites feel it is their duty to educate the negroes, yet in sympathies and interests they are far removed. It is impossible that a race so recently in serfdom should hold any other position. Economically, morally, and mentally they have been handicapped.

Probably no other generation of Anglo-Saxons could have done more, for it must be remembered they were impoverished and had lost much that was dear to them—and this through the race which they were asked to elevate and protect. No body of men in the history of the world has ever had such a situation to face. There were no precedents, and criticism should be sparingly given if they are but slowly perceiving and responding to its need.

Those advancing the theory of social equality in the South mean quite differently from those in the North. It is not

mingling at the white's social functions, or invading his home, but such economic, financial, cultural, and educational conditions as will enable him to maintain similar grades in his own race and to have literature and recreations of equal standards. This requires the interest and coöperation of the whites, which are at present denied. The free intermingling of the two races is impossible, at least for many generations, because of a deeply-rooted social and racial prejudice. It is useless to deny this, for New York and Ohio in the North have recently verified this statement. This will not prevent the negro from reaching and maintaining similar grades within his own race; and when these are established the negro will not demand, as indeed he does not in the South, social equality with the whites. He will find within his own race what he needs and desires.

The social life of the negro centers about the church, for he has few organizations and clubs. Even labor organizations are but slowly finding a place in his life. This lack of organization is detrimental to the negro. The whites are the negroes' best friends, for the black race has not yet ingrained in it integrity and loyalty. This is shown in many ways. Negroes prefer white men on juries, because they accord fairer treatment. There are many negroes sent to prison because of malice. If a negro is undesirable in his neighborhood, and does not remove when requested, his neighbors combine and cause his arrest—and their testimony imprisons him. In the data regarding *fear*, it is seen that not a few fear their own race more than anything else. The negro has been trained to be loyal to the whites; this virtue still takes precedence. There can be little racial progress without racial integrity, loyalty, and pride. The social life of the negro church is broad, but it is lacking in the fundamental principles that should make it a governing agency. Most of the excursions, picnics, parties, entertainments, cake-walks, and festivals have their relation to the church. The negroes' leisure permits of much social intercourse, and this often leads to an expenditure of money for finery and unnecessaries that keeps the race impoverished.

The other great social center is the saloon, which is of more importance in the towns. Many crimes are the result of fights caused by gambling and drinking. The negro depends greatly upon the saloon. The many varied forms of physical recreation known to the Northerner and the careful management of his places of amusement are unknown to the negro. The negro's gambling is not usually conducted in well-ordered establishments where he is subject to rules and restraints. There are cheating and interference in his game of "craps," which lead to serious fights. Frequently officers furnish money for gambling and later swoop down upon the players. I am not dealing with the question of the propriety of license and regulation—only with the fact that such a system produces fewer public criminals, for it involves restraints that make the more serious crimes less possible. The social life of the negro lacks direction, restraint, and healthy interests. It consumes too much time with trifles, and increases the opportunities for committing crime.

2. *Politics.*—The negro is practically disfranchised, and so revolutionary is the feeling of the whites that any attempt to force a change were useless. Mississippi, South Carolina, Louisiana, and North Carolina have adopted laws, and Georgia and Alabama have made attempts. The nature of these laws varies, but the purport is the same. It may be a poll tax, which the negro is incapable of paying; it may be an educational or property test; it may exclude all except voters before the war and their descendants; or it may be the simple method of not counting votes: but the result attained is the same. This movement is due primarily to the lack of foresight shown by the government when it gave the negro full political power. Influenced and backed by rascally Northern politicians, and lacking both comprehension and judgment, the negroes committed acts that would have aroused any other nation of whites to action. Reactions are always violent, and the whites are now returning the measure with interest. If the negro defrauded and domineered over the white, that is a past condition of which only traces remain.



This movement upon the part of Southern States is open to the just criticism that it is a discrimination against *race*, not ignorance. All fair observers demand that the tests be applied alike to both negroes and whites. Without condoning the action of the States, it must be remembered that there is a political party standing ready to make the utmost capital out of such a move as disfranchising ignorant whites, and that these laws were passed through the influence of Southern Democrats when a great national issue was pending. Spasmodically, bodies of men do great, noble, and humane things; but in the dealings of routine life the tendency is ever toward weak and cowardly acts. The result of these laws in relation to crime is clear. The race furnishing the mass of criminals has no voice in making the laws, or determining the system of punishment. Education, property, health, business—in fact, all vital interests are affected by the laws in the making of which they have no part. They are dependent upon the will and caprice of the whites. They are handicapped, and are denied the stimulus to national pride and life, which is the highest form of restraint in criminality.

Yet we must recognize that the former negro politician did little for his race; the tendency was downward then, whereas it may only be stationary now. The negro at present has neither the perceptions nor the solidity of character that would enable him to lead his race. While the laws passed are unworthy of the Anglo-Saxon race, they nevertheless furnish the opportunity for the negro to seek education and training that will bring financial and commercial independence; and these will just as surely insure political rights. Meanwhile the whites have taken upon themselves the burden of dealing justly by the negroes, and they are watched by many critical eyes. Just as surely as they fail there will come the intervention of a stronger power. It is not an ethical delusion but a practical fact that no part of a nation can long withstand the opprobrium of its fellows and of the world. The social, economic, commercial, and political interests of the world are too vitally related to permit this.

3. *Laws.*—The text of the Southern statutes applies equally to whites and negroes. Notwithstanding the contrary boast, there is inequality in their administration. The negro's life is valued at less; as a convict he is too often regarded as so much revenue to the State, and less time is spent in meting out justice to him. Under another head, a further discussion of this appears, and one illustration will suffice. The pardoning power of the Executives in the South is not equally applied. Data are exceedingly difficult to procure, but the last reports of Virginia and Louisiana show: In the former, one out of every three and a half white men receive a pardon, while only one out of every fourteen negroes obtains such clemency. In the latter, for the whites it is one to every four and a half white men, and one to every forty-nine negroes. In other words, there are 29 pardons granted in a population of 132 white men, and 17 to a population of 843 negroes. There are few or no white *women* in the penitentiaries, though the average number of negro women in the State institutions is about 60. In the course of inquiry it appeared that convicted white women are pardoned, as the accommodations, food, labor, and prison conditions generally are deemed unfit for them. Justice is often satisfied with the mere sentence, and pardons are rarely protested.

From the preceding statements it will be seen that environmental conditions play an important part. When the facts are given for each criminal, under the sociological division, this will be more evident and the conclusions can be summarized. Before considering State penal systems, there are two general subjects that need a word—the position of the negro woman and negro criminal characteristics.

The negro woman and negro girl, judged by civilized standards, are to a large extent immoral. It is almost impossible to rear a girl under present conditions and avoid this result. There is not yet developed in the race, as a whole, a pride in and honor for its women. First savages, then slaves, with the women in the position of beasts of burden and bearers of future slaves, and with scarcely forty years intervening,

the result is inevitable. The removal at an early age of parental influence places the girl at the mercy of both negroes and whites of the male sex. In the Northern reform schools the children coming from conditions similar to those of the negroes show an equal percentage of immorality, so that racial tendencies alone cannot explain it. Unfortunately, statistics are not obtainable regarding the morality of the adults who live in conditions similar to those of the negroes. The negro woman of the lower type still recognizes her subservience to the white man, and yields herself quite as readily now as then. Precedent and habits of associates are powerful factors in directing the action of these women. There are few occupations aside from domestic service open to them, and prostitutes are recruited from this class. The physical senses predominate over the mental, moral, and spiritual impulses. There has never been a demand for the latter. Laws against immorality are laxly enforced. Whites within their own social circles will not countenance immoralities to which they are indifferent in the negro race. The crimes of these women show that the route has been that of immorality. Many of the crimes are committed in questionable resorts, under the influence of alcohol, or through inducements of depraved husbands and friends.

But a small percentage of crime exists among white women. The reasons, which distinguish the North from the South in this particular, may be thus summarized: There is no white servant class. The attitude of the white Southern man is such that the white woman rarely becomes a public, degraded character. In cities, where the younger generation of men predominate, this attitude is less protective. The attitude of the white women is conducive to negro immorality, for they are generally indifferent to the relations of their husbands and brothers with negroes—where a Northern white woman of equal social standing would not be. This is unquestionably due to the practises in vogue during slavery. Thus the "hill tribes" are the only whites in the South from which prostitutes could be derived, and these are a rural population. There are not many cities, so there is but little encouragement in

swindling, shoplifting, and crimes requiring organization. Women in the North are often members of "gangs." The attitude of jurists and harsh penal systems prevent the conviction of women and lead to Executive clemency. The plantation system has segregated women from public life, and in cities they do not enter the competitive world, as do Northern women, and are less subject to its temptations and hardships. Many negro women are arrested as "suspects," and get short sentences. This is rarely true of the whites.

The negro criminal differs from the white in some respects. His crimes are usually those of theft and violence, and are simple in their execution. For this reason, though the negro is lower in intellectual and moral acquirements, he appears to be less criminally disposed than the white. Unfortunately, we include in criminality, not only deviations from standards which the individual *comprehends*, but all forms of underdevelopment as well. The negroes' criminality is that of an undeveloped race. That of the whites is more characterized by a capacity born of development. There are few professionals among the negroes, and there are no truly "great" criminals. They may be "prominent," but the two are not identical. The negroes' crimes show an absence of social and personal responsibility, and are the outgrowth of impulse rather than of well-laid plans and complicated schemings. Even the mulattoes are not "great" criminals. They are only more refractory under discipline and are more petty in their dealings. The negro class contains many who are vicious and depraved, but their cunning and craftiness are of a low order.

There are no well-defined criminal "gangs." Social conditions may be partly responsible for this. People are better known to one another in the South, especially in the small towns; prices are high, but there is an extensive credit system. There is less actual need. In the North, people are not so well known to one another; there is more of the cash system, and there is greater necessity for organization. Wealth in the North is represented by more personal property, while much of that in the South is in real estate. The nature of

the property in the North requires a higher order of mentality and physical dexterity to prey upon it successfully. As a prisoner the negro is more obedient and willing, while the white is aggressive, impudent, and quarrelsome.

There are many who assert that the negro is more criminal now than before the war, and far exceeds the white in crime. There can be no answer to the first assertion, because there are no antebellum records. Acts for which the negroes received chastisement at the hands of a master are now felonies before the State. In answer to the second assertion, there may be cited the following conditions, which are more unfavorable to the negro: There are but three reformatories in the eight extreme Southern States, and no State reformatories. Measures for reform in the penal institutions are not one-half as great as in the North. The penalties are extreme. Life sentences are frequently given for burglary and arson, as well as for murder. This makes a larger constant prison population. A minimum amount of home training, free street life, the small degree of education, and early labor cause the statistics to reveal a much smaller ratio of *educated* criminals to the *educated* population than in the North. Statistics are distorted when the number of criminals is compared with the number of educated negroes. There is unquestionably an increase in crime among negroes in the North, but we do not know if they are educated, and we fail to consider that the Northern civilization is more complex, more advanced, and more difficult to meet. With its advantages come increased perplexities, which the negro has not grasped. The whites cause crime among the negroes by attentions to negro women. The women prefer the white men, and this condition is no small cause of jealousies and assaults. A white man would be deemed justified in committing homicide under similar circumstances. The domestic life is less of a prevention against crime. There is a greater percentage of *married* convicts in the South than in the North. There are no statistics available to show if the negro is a recidivist to the same extent as the white. There are no systems of identification, and the terms of sentence are

so long as to make comparisons doubtful. Georgia has compiled a report of the different States that shows the white to be more of a recidivist, but I cannot vouch for its accuracy. One condition is more favorable to the negro: there are but few "tramps" in the South; so that there is not this source of supply, from roving "gangs," and the youth are not influenced by them.

FRANCES A. KELLOR.

*The University of Chicago.*



# A CONVERSATION

WITH

ELTWEED POMEROY, A.M.,\*

ON

DIRECT LEGISLATION AND SOCIAL PROGRESS.

Q. Mr. Pomeroy, as president of the National Direct Legislation League, and as a student of economic problems who has for many years been interested in these great republican measures, I feel that you, better probably than any other American, can give us the present status and outlook for Direct

\* BIOGRAPHICAL NOTE.—Eltweed Pomeroy, A.M., president of the National Direct Legislation League, is one of the highest authorities in America on the wise and reasonable innovations which the Swiss have so successfully introduced into their government during the last century, and which have succeeded in so marked a degree in enabling popular government to adjust itself to the changed conditions of the modern age of combination and capitalism while preserving the cherished ideals of freedom. Mr. Pomeroy belongs to a group of thoughtful young Americans who are earnestly seeking to meet and remedy the dangers threatening our government through the rise and rapid growth of law-protected monopolies and arrogant combinations, whose corrupting influence is already evident in our political life. He realizes, as do thousands of the most thoughtful and earnest of our people, that our great Republic cannot long survive as a free government unless the people early arise and overthrow that trinity of death—the corporation, the party machine, and the political boss. He understands that, unless democracy is doomed to perish in the New World, the masses must compel political and economic changes in alignment with the larger demands of the age. Direct legislation, coöperation, equitable taxation, and kindred reforms must mark the first steps that will open the way to the emancipation of the people and the dawning of a day in which liberty, fraternity, and justice shall mean far more than empty words.

During the last ten years Mr. Pomeroy has made a special study of Direct Legislation. He has also become one of its best known advocates, having discussed its merits before popular gatherings in almost every State in the Union, as well as appearing in its defense before eight or ten legislatures and many colleges and educational bodies. Since 1895 he has been the editor of the *National Direct Legislation Record*, a quarterly publication recognized as the ablest and most authoritative journal on this subject published in the New World. But, though Swiss innovations have largely occupied his spare time, he has also actively interested himself in other great reform ideas. Being what may be termed a moderate socialist, he has advocated governmental

Legislation throughout the civilized world. Is it true that Direct Legislation, if gained, would aid the capitalists and hinder the coöperative commonwealth, as some social reformers contend?

A. No; on the contrary, it would greatly aid the coming of the coöperative commonwealth. I believe this because I believe the doctrine of evolution is applied to politics and reform matters as well as to other things.

Q. How does the theory of evolution apply to political progress?

A. The same as to the development of the physical side of man or any animal, or to the development of the plants or any other growth—in a short step at one time, and the accustoming of the people to that step, so that from it they can proceed to another. Every little advance gained is ground

ownership and control of natural monopolies, the inheritance and income tax, and higher wages and shorter hours for the bread-winners; and I believe he has also been an advocate of governmental employment of the out-of-works. In his own factory ten years ago he introduced profit-sharing, and has at all times striven to build up a coöperative spirit in his business.

To those who believe that ancestry has much to do with the character, bent, and inclination of a man, it will be interesting to know that Mr. Pomeroy is a direct descendant of the Puritans of early New England, the first Eltweed Pomeroy having come to Massachusetts in 1830. Three of his great-grandfathers fought in the Revolutionary War, and the family has always evinced that sturdy love for liberty and the rights of man that alone renders possible the maintenance of free government. The question of hereditary influence is an alluring subject, though personally I agree with Lord Lytton in that it is not to the past but to the future that we look for true nobility; and I am more interested in the indefatigable worker for social righteousness, as I have found Mr. Pomeroy to be during my acquaintance of ten years, than I am concerned in theorizing as to the possible influence of worthy ancestors upon their descendant.

Next to his labors for Direct Legislation, perhaps the most important public educational work achieved by Mr. Pomeroy was the fathering of the National Social and Political Conference, whose first meeting opened in Buffalo on June 28, 1899, and whose second session is to be held the coming summer in Detroit.

Mr. Pomeroy is a young man, hardly on the threshold of life's prime. Before him we trust there stretch many years of fruitful labor. He belongs to a band of thoughtful workers who reflect the spirit of altruism, or coöperation and brotherhood, as opposed to the spirit of commercialism, greed, and egoism that is struggling to establish an oligarchy or plutocracy under the mantle of republican institutions, as the di Medici family subverted free institutions and established a despotism under the garb of a republic in Florence during the Renaissance.

—B. O. F.

for further advance, and if Direct Legislation can be gained it can be used as the lever to gain other things; and Direct Legislation gained will be a means for practically applying a large amount of steam now dissipated in the air, which makes a great sight but does no work. Possibly there will be less in view, but there will be more done with Direct Legislation.

Q. What have been the practical results in Switzerland following the introduction of Direct Legislation into practical politics?

A. The direct results have been so many and so various that any answer, except on broad lines, would take a book instead of a paragraph. The great thing that it has done has been to develop a feeling of social solidarity and brotherhood. One Swiss statesman wrote to me that every time they had a referendum voting they had a real and vital communion or common action for the common good; and, whether the measure was defeated or passed, it resulted in an accession of knowledge to the common people for future action. To-day Switzerland has more practical socialism, with perhaps less of noisy agitation, than any country in the world.

Q. You regard Direct Legislation, then, as being a radical step in advance, and yet conservative in its operations?

A. Most certainly. It will conserve all that is good, while allowing us to discuss and bring to light the bad and evil. It seems to me that there is rapidly rising in this country a tide of radical sentiment that may culminate within the next decade, and that that radical sentiment will grasp power in this country and may then attempt some reforms too far ahead of the people to be practical; and it seems to me that then the conservatives will turn to Direct Legislation as the means for preventing a too rapid advance and for conserving the really good things in the past, which the radicals, if they get in power, may attempt to overthrow in mistaken zeal. Any reform completely disconnected with the past is almost valueless. It must grow out of the past, modifying it to the necessities of the present and the future, to be of the best value.

Q. Have there been any signs of reaction in Switzerland since the introduction of Direct Legislation?

A. None whatever. On the contrary, it has advanced from one form of government to another; from cantonal matters to national matters, and then to the municipalities and other local places where they did not have it formerly, until now it possesses almost every form of government in Switzerland. When we use the word *government*, people are apt to think of one concrete thing; but there is a great variety of forms of government—such, for instance, as in my own city of Newark, where we have a board of public works entirely distinct from the lawmaking body, a board of health, and a number of other similar bodies. In Switzerland Direct Legislation is being applied to all these forms of government with increasing rapidity—also with increasing amplification of use and with increasing frequency in its use by the people. There is not to-day a single public man in Switzerland openly opposed to Direct Legislation, and of course not a single party.

Q. Are there any signs of interest in Direct Legislation throughout other countries of western Europe in any departments of government, or in the application of any great questions?

A. Most certainly. In France there is a Direct Legislation League which is actively agitating, and the French cities have a large amount of municipal Direct Legislation. The same is true of Belgium and Holland, to a certain extent of Prussia and Austria, and to a limited extent of Italy. It is still more true of Great Britain, where municipal matters are very frequently voted on, and parliamentary elections are to-day in reality a referendum on one great national question—even more so than our Presidential elections. But it is in Norway that Direct Legislation has probably had the largest growth outside of Switzerland. The liquor question is there continually voted on by the people—as to whether they will continue the old license system, whether they will completely prohibit, or whether they will adopt the Gothenburg system of municipal control. It is also used regarding some ques-

tions of municipal taxation and appropriation of money and bonding. The lower form of Russian government has a great amount of purely democratic Direct Legislation in it, in the *mir* and *artel*, where the people themselves vote on the communal division of the land and taxes. The Russian government is an anomaly in that in its higher forms it is bureaucratic and autocratic, while in its lower forms it is very democratic. This is to-day the real strength of the Russian government, and the autocratic and bureaucratic form is striving to replace the other; if it succeed we may look for a disintegration in the future of the Russian Empire, through a lack of real vitality in its different members.

Q. Australia and New Zealand seem very progressive along some lines. Is there much interest in Direct Legislation manifested in those regions, or has the Direct Legislation sentiment gained any foothold?

A. A very strong foothold in almost all the Australian colonies. It is advocated by the liberal and labor parties there, and I have opinions favorable to it from all but one of the Australian premiers, and they are actually using it to settle the liquor question, in that every municipality votes once in three years on the triple question of continuance of license, reduction of license, and prohibition. They are also using it regarding taxation. It recently came very near going into the federal constitution for United Australia. About the same progress has been made in New Zealand, but in New Zealand bills for complete Direct Legislation have passed the lower house of parliament two or three times, and it looks as if in the near future they would pass both houses and become the law of the land.

Q. Beyond the educational agitation that has been carried on in this country, what are the most important positive advance steps that have been made, especially politically?

A. The adoption by South Dakota of its amendment, which is now in its constitution and in full force; the passage by the legislatures of Utah and Oregon of amendments that will doubtless soon be adopted; the passage in Nebraska of a

Direct Legislation municipal law; and the adoption of Direct Legislation into municipal charters in a complete form in San Francisco, Vallejo, and Seattle, and in a partial form in a great many other cities, but particularly in St. Paul, Detroit, and Nashville, where no municipal franchises can be given away by the common council without a vote by the people. In Massachusetts the liquor question is also yearly submitted in the cities, and a great variety of other questions are submitted, according to local conditions.

Q. Well, do you think Direct Legislation will succeed through becoming a party measure, or that it will come quietly, through the action of all parties, or through an enlightened public sentiment acting through the various parties?

A. What has been done will perhaps show us what is to be done. The Populist legislature of South Dakota passed the first amendment, and the Democratic legislature of Utah and the Republican legislature of Oregon passed amendments only a few weeks apart. Direct Legislation was in all of the (at least) ten national platforms during the last campaign, excepting the Republican and Prohibitionist platforms, and it was not opposed by them; but it was not made a leading issue in the campaign at all. Mr. Bryan spoke of it, but only incidentally, and the Democratic speakers generally did not give much attention to it. I do not know of but one public man who has openly come out against it, and he is very much discredited in his own State—the Hon. J. Sterling Morton, of Nebraska. It seems to me that Direct Legislation is going to come through the action of whatever party is in power when the people of a locality demand it. Reforms are apt to come like the kingdom of heaven—like a thief in the night, without observation; and reformers who have their eyes on great national matters, which they think they can influence in a big way, very often overlook the quiet, slow advances in which real growth is made.

Q. Do you belong to the Union Reform Party, which has nothing but Direct Legislation in its platform; and if not, why not?



A. No, because I have great faith in education and very little faith in the formation of third parties. I believe that the old parties will be responsive to public sentiment when there is enough of it, and that under present conditions it is almost impossible to start a new party and have it successful within any reasonable length of time.

## TOPICS OF THE TIMES.

By B. O. FLOWER.

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### THE TRUE SERVANTS OF CIVILIZATION.

#### A WORD TO THE YOUTH OF AMERICA.

Civilization waits on our young men and women. Their superb courage, their enthusiasm for justice, their readiness to engage in a cause because it is right, make them ever the advance guard of progress. Among those who have grown old in the battle of life there are always a chosen few in whose hearts the spirit of youth, fed by unfaltering faith, burns with unremitting brilliancy; but by far the greater number, even of those who start out true-hearted and resolute to consecrate life to the service of progress, waver and become faint-hearted long ere they reach the meridian of life. Their ideals vanish before successive disappointments; they see the hopes of youth wither before the combined influence of conservatism, conventionalism, and egoism; they note how those who hold principles lightly and who worship in the temple of the false god of Mammon seem to prosper, while non-conforming Truth is scorned and justice is bowed out of the halls of State. And thus it comes to pass that the ranks of those who had beheld the vision of day as it broke on the plains of the ideal become thinned. Some fall by the wayside in what to superficial minds is a losing battle; others desert from the path of duty and join those who move along the broad way, dominated by narrow, short-sighted self-interest. The few who persevere, however, pass from youth to age with the music of the lark and the nightingale ringing in their hearts, and with the violets, the roses, and the lilies blossoming in their souls. They are serene even when the storms rage wildly around their feet. They have suffered and grown strong; they have kept faith with duty; and when age silvers their brows it finds the heart of youth, which with old-time sweetness and the confidence born of unfaltering faith exclaims, with Victor Hugo: "Winter is on my head, but eternal spring is in my heart! I am rising, I know, toward the sky. Heaven lights me with the reflection of unknown worlds." Such is the triumphant eventide of life to those who from youth to age have ever kept the fires of

faith burning brightly on the altar of the soul—who without thought of self have consecrated life to the furtherance of truth, justice, and the happiness of all. But how different is their serene and happy age from that of those who ignore the fundamental laws that proclaim the solidarity of the race, and who, absorbed in self, have been seduced from the narrow path by the lust for gold, or fame, or power, or self-indulgence! Where, among these latter, whom the superficial love to call successful, do we find the charm, the peace, the glory, the love, or the sweetness that comes to those who have found life through losing it—who reckless of self have yielded life's richest gifts to the service of others, and who have held aloft the lamp of progress, which for ages has been passed from generation to generation, while its steady beams have been as it were the guiding star for the wise and the aspiring youths of every age?

Standing as we are in the ruddy flush of a dawning century, a question of supreme importance comes to every young man and woman of America to-day. The twentieth century propounds the old questions: Whom will you serve? Will you become a servant of the noble, the true, the beautiful, and the just? Is it your high purpose to consecrate life to the service of humanity? Will you recognize in this existence its true significance, and exclaim, with Mazzini, "Life is a mission!" or with Victor Hugo?—"To live is to have justice, truth, reason, devotion, probity, sincerity, common sense, right, and duty welded to the heart. To live is to know what one is worth, what one can do and should do. Life is conscience." Or will you drift with conventionalism, allowing opportunity, with her eternal consequences, to pass unimproved? Or, what is sadder still, will you turn from "the love of the best," and the pursuit of the highest, and accept the low ethics of modern society life and of materialistic commercialism, becoming a slave to lust for gain, lust for popular applause, lust for power, or for the fleeting sensuous pleasures whose very nature forbids their yielding enduring satisfaction or peace to the divine within each son of man? This is the august question which the present puts to strong-hearted, clear-sighted youth, in school or college, in factory, store, or on the farm; and on the decision of our young rests the forward movement of civilization or its falling back into the night. None can evade the choice; none can escape the consequences of the decision. The fact that others ignore the summons of the Infinite to

translate the Golden Rule into the life of our century does not afford a reason for your evading the high trust that has been given to you. Rather, let us say, it renders your fidelity all the more urgent. Furthermore, do not hope to be quit of the obligation imposed because you have little influence. The Infinite asks nothing more from you than loyalty to the highest, the faithful seeking to know the demands of truth and justice, and with this knowledge the conscientious carrying out of the finest vision given to your soul. Do the duty that lieth nearest you. Be true to your highest self. Let the Golden Rule be your beacon light. Do not palter with expediency when principles are at issue, and know that no man lives unto himself. Every one, no matter how humble, exerts an influence that carries with it eternal potentialities for weal or woe. The humblest life has often changed the course of another, and that other has influenced thousands, and even affected the currents of events in nations and civilizations. Covenant with your own soul to be of service in this great century that is dawning; be loyal to the divine voice in your heart; keep faith with your conscience. He that allows thought of self to be lost in concern for the happiness of others ranges himself on the side of the Infinite. He battles with the forces of the dawn, and he cannot fail.

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#### MUTUALISM VS. COMMERCIAL FEUDALISM.

Some time ago a despatch from Vienna to the *New York World* contained an extended description of the methods by which the government of Hungary proposed to deal with the Trusts in that country, in order to protect the people from injustice and extortion. The plan in the briefest outline, as drawn up by the Minister of Commerce, embraced the following provisions: (1) It requires the Trusts' accounts to be submitted to the auditor, and the publication of the terms upon which the Trust was organized. (2) If any Trust raises prices so as injuriously to affect the people, the government will be empowered to abolish all duties on the Trust-protected article. (3) In case of necessity the government can take control of a Trust, and, if its action is sufficiently flagrant to warrant extreme measures, the government will confiscate the Trust and after compensating the firms that comprise the combination will nationalize the industry.

This proposed action of the Hungarian government is in harmony with the drift of the age. We do not believe that it will ever be possible to rehabilitate the old competitive system. Its enormous waste and the spirit of warfare which it generated and fostered condemn it from either a commercial or an ethical view-point. Time was when the laboring class sought to destroy labor-saving machines as fast as they could be introduced, because they felt that their multiplication would mean the starvation of many of their numbers; so the defenders of competition have long influenced the masses in favor of the old system of war and waste by appealing to their fear of idleness through the labor saving that combination renders possible. They, however, have not been able to stem the tide, and at present we find that the more thoughtful among the bread-winners, as well as the more philosophic among the humanitarians, are coming to realize that a shorter day and a higher wage are better than a long day devoted to toil that can better be done with fewer men under combination or coöperation. Hence, while being no more reconciled to anything that threatens to glut the labor market or hold down wages than are the friends of competition, these people demand that the principles of coöperation or of combination be so employed that all instead of the few shall receive the benefits, either by nationalization of industries, by coöperation, or by a well-considered profit-sharing system that shall give to the workers a *full share* of all profits.

In the Middle Ages an anarchistic feudalism marked the political life of most of the nations of western Europe. Irresponsible lords, barons, chiefs, or adventurers warred against one another and against the central power. The masses were ignorant serfs, and kings, rulers, or potentates were creatures of factions, while disorder, lawlessness, and brutality were only tempered by the influence of chivalry and the Church.

With modern times came political revolutions culminating in centralization, or the domination of kingly power, with the result that greater order and stability marked government, and business, commerce, and intellectual advance were comparatively rapid, while the responsibility of government was so fixed that it was possible for the next great step of popular rule to come as a result of despotism, unjust oppression, or abuse on the part of the responsible government. Hence, political progress has been marked since the overthrow of feudalistic anarchy by a positive advance toward democracy. Some-

times it was the result of violent upheavals, at other times by the orderly advance of freedom through enlightened legislation backed by popular demands.

Now, we believe that an analogous evolutionary process is indicated in the business world. The anarchic commercial system of competition is practically a thing of the past. We have outgrown it, and a system of centralization or combination is now upon us, involving a supreme issue—that of the establishment of a commercial feudalism throughout the social and business world, with its money lords, barons, and princes dominating government, controlling the opinion-forming agencies, and exercising arbitrary power over the toiling millions, or of an enlightened system of coöperation or mutualism, through orderly operation of which the blessings of wealth, of science, of education, and indeed the opportunity for the development of the best in man shall be the heritage of all. From this time forth, we are inclined to believe that every time the question relating to monopolies or Trusts or combinations comes up for discussion the number of persons that will see the importance of prompt measures to secure to all the blessings produced by the millions will rapidly increase. We are entering the age of combination and coöperation. We believe that the progress toward a realization of the just advantages of the present system will become more and more marked with each passing year. It is not probable that the change will come at once, unless the arrogance of the few who through special privileges assume the right to extort from the consumer on the one hand, while grinding the producer on the other, precipitates revolutionary changes. Barring this possibility, we look for changes by which the people will come into their own—changes that will be achieved by a series of progressive steps. First will come the municipalization or nationalization of public utilities, followed by either the progressive nationalization of industries or the passage of measures that will result in coöperation for the just and mutual enrichment of all the toilers.

The details of the coming changes, however, cannot be predicted, but the drift of public opinion throughout civilization and the strong current of organized business are unmistakable. The coming conflict will be between the powerful few struggling for mastery, as did the feudal barons, and the enlightened, intelligent, and conscientious among the masses, reenforced by men of conviction and high ethical ideals among the thinkers.



## A GREAT ACTOR IN A VITAL SOCIAL PLAY.

In Mr. E. S. Willard's masterly presentation of Henry Arthur Jones's drama, "The Middleman," we have a splendid illustration of the stage fulfilling her true function by entertaining the spectator with a strong and absorbingly interesting play, while at the same time impressing thoughts and lessons of vital importance to our present civilization. It would be difficult to overestimate the value of such a work in a transition period. The stage is potentially one of the greatest engines of progress, because it appeals at once to the reason and the emotions, thereby taking hold of the whole man. It is unfortunate that the leaders of ethical, social, and economic progress have not as yet awakened to the immense importance of securing the stage as an ally in the fundamental educational work that must always precede reformative and revolutionary movements intended to be of permanent value to civilization. Signs are not wanting that lead us to believe that the twentieth century will utilize the drama as never before and make it grandly effective as the servant of progress, even as at critical periods in the last century fiction has been made the handmaid of justice.

The supreme function of art, in all its varied manifestations, is to reflect the truth; and the drama, to be a great art work, must necessarily conform to truth in all its requirements, not only reflecting things as they are but also at the same time conforming to the ideal of progress so as to indicate the demands of justice and right as they relate to life and sound morality, irrespective of accepted dicta if they rest on false, narrow, or artificial foundations. Moreover, its lessons to be most effective should not be presented in a didactic manner, but rather unfolded in the natural order of events. The problem play, like the problem novel, is too apt to subordinate interest and action to the moral lessons that are present in the mind of the author; and this invariably tends to defeat its purpose, not unfrequently making it a prosy sermon rather than a work of art in which truths are carried home to the mind in the artless way in which Nature reveals her beauties and teaches her lessons.

In "The Middleman" we have a drama that is at once an art work and a social study of real value, because here the author has kept in view at all times the fundamental truths upon which worth rests and progress depends, instead of con-

fusing the true with the false, the artificial with the real; and with these facts clearly before his spectators he unfolds a picture of modern commercial life with remarkable fidelity to existing conditions. Thus by adhering to the demands of art and the spiritual verities he is enabled to impress, without at any time appearing to preach, important truths upon the minds of thoughtful people in a most compelling way. The story told in the play is, briefly, as follows:

The title of the first act affords the key-note of the play. It is termed "Commercial Caterpillars." The curtain rises, revealing the drawing-room in a home of wealth. Standing on the threshold of a balcony overlooking a spacious lawn is the rich Joseph Chandler, the proprietor of the great Tatlow porcelain works. He is haranguing a large party of townsmen who have come by invitation to a lawn party given by Mr. Chandler. The cause of his throwing open his palatial grounds to the artisan class is revealed in the opening words of the rich man. He is a candidate for political honors, and is even now engaged in a political speech. Behind him stands one Batty Todd, the manager of his works, who is also engineering the campaign and with note-book in hand is acting as prompter for his master. From the shouts outside it is apparent that the flattery bestowed and the self-laudation indulged in are agreeable to the audience.

Within the large drawing-room, which occupies almost the entire stage, are the wife, daughter, and several friends of the rich man, among whom is one Lord Umfraville, with his wife and daughter. The lord is poor and pressed for funds, and Mr. Chandler is rich and hungering after social position. Consequently, a match has been arranged by which the lord's daughter and Mr. Chandler's scapegrace son are to be wedded. The union is entirely on a commercial basis, as it is soon evident that neither of the young people has a particle of affection for the other, and the son rebels against the proposed marriage, even though he feels himself in his father's power. He has been wild at college, having contracted heavy debts and gotten himself into a number of serious scrapes. Furthermore, he has never been taught to govern or master his passions and desires. Yet he is far less cruel, selfish, and calculating in nature than his father. The elder Chandler is a striking type of the self-made man who worships his maker, and he is supremely indifferent to the rights, the wishes, the desires, and the feelings of others when they run counter to his own selfish

ends. He has acquired his fortune, as have thousands of the very rich of this age, by utilizing the results of other men's genius and toil in such a manner as to yield him a princely fortune, while the real authors of the wealth remain poor and in dependent circumstances.

It was twenty years before the opening of the play that one Cyrus Blenkarn, an artisan who had discovered after long experimentation a process by which a beautiful porcelain could be made, fell into the hands of Mr. Chandler. The latter, being possessed of some funds and seeing the inventor's dire straits, while quickly recognizing the immense value of his discovery, took advantage of the helplessness of Blenkarn and secured the sole right to use the discovery for £200 and the promise of a position as workman in his factory. He had also displayed excellent judgment in obtaining the services of Batty Todd to manage his works and direct his business. Thus, having secured for a trifling sum the fruits of Blenkarn's genius and toil and the business ability of Mr. Todd, Mr. Chandler was enabled to build up an immensely lucrative business, reaping a princely revenue, while Blenkarn received but a laborer's wage and Todd a small salary. For years Mr. Chandler's one object was the amassing of a fortune, but at the time the play opens the opulent manufacturer is thirsting for political honors and power, together with a certain social standing, which he hopes the position of Member of Parliament will secure for him. It is probable that in youth Chandler was not wanting in noble, honorable, or generous impulses, such as are evinced by his children, but the ethics—or rather the lack of ethics—of modern commercialism are fatal to the diviner attributes, unless the character in youth be well rooted in the higher law; and the rich man has long since come to think only of wealth, fame, and self-aggrandizement.

The play bristles with incidents that illustrate how the aid of others in important positions and the great opinion-forming influences of society are utilized for the advancement of the "commercial caterpillars" in modern society. Thus, for example, the mayor of Tatlow is indirectly bribed by the purchase of immense amounts of wine from his liquor store and the holding out of continued patronage, until he is induced to make a fulsome speech introducing Mr. Chandler to the electors; while the press is looked after by Mr. Todd, who prepares or carefully edits all the matter that goes into the partizan papers favorable to the rich man. This is effectively brought out by

the introduction of a subservient representative of the press, who has been carefully looked after by Mr. Todd, and who submits a fulsome write-up of the address, a laudatory sketch of Mr. Chandler, and a glowing account of the meeting for any suggestions or improvements that the manufacturer might wish to make. The eulogistic sketch of Mr. Chandler represents him as the embodiment of generosity and a man whose every thought is directed for the welfare of the community and the happiness of those around him. Nor is this all. The wild and wayward son, who is about to leave for Africa as a part of the discreditable bargain with his father, is represented as a paragon of virtue. But against this last false picture the youth protests, declaring that he is leaving because he has been wild, reckless, and extravagant; that his father has promised to cancel his obligations and straighten out the difficulties he has gotten into on condition that he join his company, now about to start for Africa, and that on his return he form an alliance with some noble family. The alarm and indignation of the father over the son's frank confession of the truth lead to an indignant protest, but his fear that it may get into the press and thus hurt his own prospects is quieted by his manager, who assures him that he will read and edit all proof relating to the matter. These ugly facts connected with the debauching of the press and the influencing of public opinion in ignoble ways, though brought out with great clearness, are not presented in a didactic manner.

Lady Umfraville, who is present during a part of the first act, expresses a wish to see the genius whose wonderful discoveries have made the great Tatlow works possible. This disposition to give credit to any other than himself is promptly resented by Mr. Chandler, who refers to Blenkarn in somewhat contemptuous terms as one who is anything but a genius; and, in answer to the request for a definition of the term, the manufacturer replies that a genius is a practical man who has the shrewdness, penetration, and insight to see merit in discoveries or inventions and the energy to take hold of them and make them useful to the community. "That," he observed with complacency, "is the type of genius I admire."

The entrance of Mr. Willard as Cyrus Blenkarn, the inventor, clad in his working clothes and in search of his employer, that he may secure an advance on his wages sufficient to enable him to pursue his effort to discover a lost art in the making of pottery, is very effective, inasmuch as the great

artist, who in this instance stands as the colossal type of the inventive genius who cares little for self, but is absorbed in his noble mission on earth, compels the audience to feel at once the superiority of that which is noble and intrinsically great over that which is shrewd, calculating, and self-absorbed. The auditor feels, even though he may not be analytical enough to be conscious of the fact, how much greater is the spirit of the inventor, embodied in the genius,—the self-forgetful one who shadows forth in a real way at once the spirit of progress and the soul of altruism,—than is that of the purse-proud rich man who has just been receiving the wild plaudits of the rabble. On the one hand is genius, unselfishness, loyalty to the ideal, and goodness; on the other hand egoism—cold, calculating, and yet temporarily clothed in the power that money, under the present age, even when unjustly acquired, can give. Blenkarn is one of the world's benefactors—one of those servants of progress who, haunted by a dream or an ideal, pursues it, through poverty and self-abnegation, until victory crowns his toil and the world is enriched for all time as a result of the consecration to the ideal and the unremitting labor of the benefactor. He is great in his homespun—a beautiful but simple-hearted, genuine, child-like man. And yet in spite of his serenity he impresses the auditor as being a man of great conviction and one capable of infinite love and terrible hate. Thus far, even during the score of years in which he has tirelessly labored to discover the lost art, he has lavished his love on his children, and especially on the elder daughter, a child of fine nature, who has appreciated her father's aims, has sympathized with him—in a word, has always understood him, even when others called him a visionary whose brain was touched.

Upon this elder child, Mary, the father has expended what he could spare from his experiments for her liberal education. She has grown into a beautiful, cultured young woman, and for some time has been an inmate of Mr. Chandler's home as companion for the manufacturer's daughter Maude. Between the two girls a deep affection had long existed; but the home of a rich man in which there also dwells a handsome, daring, reckless young man is too often a dangerous place for a beautiful, susceptible, and unsophisticated girl who has but lately crossed the threshold of womanhood. And here again we have the old, sad story, although the affection of the youth is real; and after he tries in every conceivable way to induce his father to pay his debts and help him to extricate himself from his



difficulties without his consenting to marry the daughter of Lord Umfraville, for whom he cherishes no sentiment of affection, he compromises by accepting an arrangement that will take him to Africa for at least a year, and in his heart he meditates marrying Mary Blenkarn before he returns to his home. The lovers, in the course of a hurried conversation, are surprised by the rich manufacturer, who now learns of the relations existing between his son and Mary, and also hears from the girl's lips that their secret cannot remain unknown. While the proposal of Julian Chandler that the girl meet him in Paris and become his wife is only half uttered, the father's interruption breaks all communication between them. The son is hurried to London without being permitted further to communicate with Mary.

In the second act we are introduced into the home of Mr. Blenkarn, and here indirectly the frightful condition of the workers in the factory is brought out. Cyrus Blenkarn unfolds his dream, and asserts the dogged determination to persevere until he finds the secret; while a young workman, whose affection for the inventor's younger daughter is very marked, remonstrates with the old man on his lack of business judgment, which has placed his own family at so great a disadvantage and permitted Mr. Chandler to lord it over them and treat them as inferiors.

In this act also Mary appears and attempts to sound her father in order to see if he could forgive her should he know of the terrible secret that has brought the agony of a lifetime into the heart of a child, and has made even the thought of suicide hold a fascination for her. She speaks of passing the grave of a playmate who had fallen a victim to others and was now in the church-yard; and this elicits a sharp denunciation of the dead girl from the father, who declares that it was a great pity that she did not die three years before, when she had the fever, as then she would not have broken her poor old father's heart. "Ah," he continues, "how different from her are you, my Mary!" Then follows one of the strongest scenes I have witnessed for years upon the stage. The father dwells on the beauty of his idolized daughter's soul, and tells her how he hopes soon to achieve his discovery, which will make them all rich. "Then you, Mary, shall have all that you can desire." And he expresses the hope that she may always clothe herself in white. The words of love and parental idolatry which flow from the old man's heart, and which under some circumstances



would have thrilled the child with joy, cut like a knife into her very soul. The audience is made to feel that the devoted father is unwittingly uttering the death-warrant of his child—a feeling that is strengthened after the old man returns to his work and Mary expresses her determination to disappear. A little later she gives her gold watch to her sister and writes a note suggesting the coming night.

Subsequently, unknown to either her or Mr. Chandler, the story of her disgrace is overheard by the youth who is attached to her younger sister. In the conversation the manufacturer scouts any idea of his son righting the wrong, but he offers Mary money for her expenses if she will go to other parts. The offer is indignantly spurned, and the daughter leaves the home of her father before a note arrives from Julian Chandler asking her to meet him in Paris, where he promises to marry her before going to Africa. Chandler, being the only person present when the letter arrives and seeing it is from his son, opens, reads, and burns it. Later the youth who has overheard the conversation between the manufacturer and the unfortunate girl informs the father of his daughter's betrayal.

Blenkarn's agony, as depicted by Mr. Willard, is one of the greatest revelations of dramatic power on the modern stage. He confronts the manufacturer with a plea for the recall of the son and his marriage to the daughter who is more than life to him. Mr. Chandler refuses, but promises to do all he can for father and daughter. "There is but one thing to be done," exclaims the old man; "send for him!" In response to every alternate proposal of the manufacturer the distracted father cries from his bended knee, "But you will not send for him!"

When at last the manufacturer beats a retreat, the old artisan springs to his feet and utters an invocation that thrills the audience. "Oh Thou," he cries, "Who holdest the scales, judge between him and me! A balance! A balance! Give justice here!" And this is followed by a graphic story of how, through his discovery, Mr. Chandler has grown rich while the inventor has remained poor; how he has become powerful and his family have been enabled to enjoy all the advantages that great wealth renders possible, while for twenty years the artisan has struggled on, only making enough to keep in a humble way his dear ones—and how the jewel of his home has been taken from him. The son of the man whom he has made rich has betrayed his Mary, and the manufacturer brutally refuses to send for the boy to save his child. The impassioned recital

ends with an appeal for vengeance, in which the father prays for success in his work that will enable him to become rich—that he may crush and ruin those who have despoiled him. "Make them as clay in my hands, that I may melt and mold them at my will in the fire of my revenge!" These words of passion—this wild cry for vengeance—sound strangely coming from the lips of Cyrus Blenkarn; and the audience is made to feel, as perhaps never before, the suffering endured in thousands of homes through the too common tragedies of present-day life that easy-going conventionalism is wont to pass over as things of small account.

The third act (three months later) occurs in the interior of a pottery. Blenkarn had promptly left the employ of Chandler after the disappearance of Mary, who according to a report has been drowned at sea. After leaving his former employer Blenkarn has disposed of his possessions, which enabled him to build ovens and proceed with his experiments. Now, however, he has exhausted his means and his credit. Two ovens are lighted, and one has gone out when the curtain rises, but the coal is almost gone, and the fires should be kept burning for many hours. The old man believes he has discovered the secret, but all others think him crazy. He sends his young daughter out to try and obtain more coal. It is a futile search. Then he goes out himself, but meets with no better success. The act is full of tragic interest, and approaches a climax when the old man, in spite of the remonstrances of his child, breaks up his scanty furniture to feed the flames. Then, turning to the oven that has cooled, he breaks down the doorway, enters, and brings out a pan containing his specimens. Then it is that reason seems to tremble as never before in the balance. He has succeeded, and then a wild burst of joy suggests reason shattered rather than happiness that flowers from sanity.

The appearance of Chandler, who, fearing the old man might succeed, has come to offer him a position if he will again enter his employ, is made the occasion of one of the greatest pieces of acting in the play. Here Mr. Willard emphasizes social injustice and flings out some terrible and ugly truths. The presence of Chandler at such a moment only adds to the over-tense nervous strain. "God made the world," cries the old man, "for parasites and libertines!" And, in answer to an intimation that his mind is touched, the aged father proceeds to point out some glaring injustices that mark present-day social conditions, and cries in derision, "That's sanity!" And then he drops his

voice and there is something almost sinister in his tone as he recounts how he has given the manufacturer twenty years of toil; his strength, his tears, his very life has gone to enriching his employer. He has given his daughter to be the plaything of the son. "But now," he adds, with terrible earnestness, "I have bought you."

The last act (one year later) occurs in the drawing-room in which in the opening of the play Mr. Chandler stood when addressing the electors. The home, however, has been sold to a lawyer, and at twelve o'clock Mr. Chandler and family are to vacate the premises. The manufacturer has speculated heavily in stocks and lost. Blenkarn's new china has made the old porcelain a drug on the market, and the old inventor has now come into possession of the Tatlow works, as the demand for the new ware has become very great. The ruin of the selfish man is complete—a fact that becomes evident when he appeals to his former manager, now the superintendent of Blenkarn's works, for a position, no matter how small, that he may earn bread and shelter for his family. The manager's answer rings with that contemptuous indifference for the unfortunate which long marked the words and deeds of Mr. Chandler and which is characteristic of life immersed in modern materialistic commercialism. He tells Mr. Chandler that he "would not be worth a penny a month" to them. There is nothing in the business he is fitted to do. "What," asks the fallen capitalist, "am I suited for?" And Mr. Todd, cynically shaking his head, gives up the problem. "But," insists the one-time powerful manufacturer, "I was long the head of our firm."

"Yes; the figure-head," comes the contemptuous retort, with the gratuitous suggestion that the figure-head of a vessel is of little use in guiding or steering the craft.

"But I am penniless," urges the desperate man. "In a few days I will not have money enough to buy a loaf of bread for my family."

Whereupon Mr. Todd suddenly remembers an important engagement, and only stops while beating a hasty retreat to request Mr. Chandler not to visit his office but to write if he has anything important to say, as he is very busy.

The incapacity for either creative, productive, or practical work of the once pompous capitalist is brought out in a startling way, as is also his former indifference to the rights and feelings of others. "Oh! this is a blackguard world—a

cold, cruel, blackguard world!" exclaims Mr. Chandler, as Todd disappears.

Next Lord Umfraville and wife enter to ask that the son, who is that day expected to return to Tatlow, relinquish his claim to their daughter's hand. The fact that the young man has distinguished himself for great bravery until all England is ringing with his praises counts for nothing since Chandler is bankrupt. At this juncture the lawyer enters, followed by the real owner of the Chandler palatial home, Cyrus Blenkarn, who has returned from a long and fruitless search for further details of his daughter's death or fate. To the new proprietor Mr. Chandler appeals for aid, but it is in the drawing-room of the home where the artisan's idolized daughter was sacrificed, and with difficulty the naturally kind-hearted man steels his heart against the one who haughtily refused to send for his son, when the sending would have saved a daughter's name and life. He refuses.

"It is hard to be down in the world!" exclaims the one-time captain of industry.

"Ah!" retorts the other, "it is harder to be kept down in the world all your life."

Then the petitioner urges his need in the name of the wronged girl. "If Mary were here," he says, "she would plead for me; for she was ever kind." At this the fury of the artisan bursts forth in such bitter tones that Mr. Chandler hastily withdraws.

Then ensues a struggle in the mind of Cyrus Blenkarn, which calls for the splendid reserve power of a master, such as is Mr. Willard. Kindness battles with hate—the longing to do good with the desire for vengeance. He has tasted the revenge for which he prayed, but he finds it fails to satisfy. Ah! kind, true-hearted old man! Natures cast in noble molds find no joy in revenge. If she has sweets, they are for souls of smaller stature. The spirit of the divine has entered too largely into thy sweet, simple, toil-ennobled life to permit joy to come as the result of pain.

In this perplexity and loneliness the old man appeals to his daughter's spirit, and there is something infinitely pathetic in the heart-cry given by Mr. Willard: "Mary, what would you have me to do? Mary! Ah, not all the money in the world can buy you back to me for one short hour! Shall I help him, Mary?" He talks to vacancy as if he beheld the spirit of the loved one near, and strains his ear as if to catch a voice borne

on the passing breeze. Gradually a serene expression steals over his countenance. He feels within his soul that his child would counsel on the side of love and forgiveness. He calls Mr. Chandler and tells him he will give him a position as under-manager, at £400 a year.

The overjoyed man has scarcely ceased to express his happiness when shouts and cries of welcome are heard without, and the announcement is made that Julian Chandler has returned, not only crowned with golden laurels but bringing a bride whom he has wedded abroad. Instantly all the bitterness of the past sweeps over the aged artisan's face. Harsh words are hurled at Mr. Chandler, and from the fallen manufacturer Blenkarn now turns savagely on the son. After rating him for his conduct, he bids him call in his wife, that he may tell her the kind of a man she has won; and at this there enters, clothed in spotless white, the long-lost daughter. The climax, of course, is melodramatic, but it satisfies the innate desire of the heart of man that justice shall triumph and right be vindicated; and in this imperative demand on the part of the people that in literature and art the ideal of right shall win, have we not the real secret of the perennial popularity of the melodrama and the romantic novel?

"The Middleman" is one of the most vivid portrayals of prevailing social conditions that have ever appeared before the footlights. The leading characters are typical; hence they are colossal. Those who once see Cyrus Blenkarn as interpreted by Mr. Willard will never forget him. He will live forever in the mind as a great art creation, which personifies the noble brotherhood of inventors and discoverers who have surrendered almost all that society most esteems for the success of some dream whose realization would enrich civilization; while Mr. Chandler, Batty Todd, and Mary Blenkarn are also drawn so boldly and with such startling fidelity that they too become types and embodiments of thousands who throng our cities to-day.

Mr. Willard's acting in this great play is worthy to rank with the master interpretations of the great actors of the last quarter of a century. Moreover, he deserves great praise for presenting this sermon on social righteousness to the play-going public. We need more such masters in the dramatic world, and more such vital plays as is "The Middleman."



## BOOKS OF THE DAY.

REVIEWED BY B. O. FLOWER.\*

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STRINGTOWN ON THE PIKE. By Professor John Uri Lloyd, author of "Etidorhpa," "The Right Side of a Car," etc. Illustrated. Cloth. 414 pp. Price, \$1.50. New York: Dodd, Mead & Company.

### *A Book Study.*

In the year 1895 a psychical romance appeared bearing the singular title of "Etidorhpa." Its author, Prof. John Uri Lloyd, had long since achieved fame in Europe and America as one of the great chemists of the New World. His position at the head of one of the greatest manufacturing chemical firms in this country, as well as his numerous valuable contributions to medical and chemical literature, had brought him into intimate relationship with wide-awake and progressive physicians and the leading working chemists of our time. Yet few if any, even among his intimate friends, imagined that this successful business man and careful thinker, long trained to modern critical methods in the fascinating field of scientific research, was a profound student of psychology and psychic phenomena, or that he had talent and taste for literature aside from its use as a vehicle for the conveyance of scientific observations. "Etidorhpa," therefore, proved a revelation to all readers who knew the author. It was a creation quite outside of ordinary fiction. Even as a psychical novel it was unique. If, as some held, it contained more truth than fiction, its truths were of a kind not credited by the majority; and if it was romance, pure and simple, it evinced a remarkably vivid imagination on the part of the scientific author.

Two years after the appearance of "Etidorhpa" Professor Lloyd published a little sketch entitled "The Right Side of a Car." It was a charming creation, rich in delicate sentiment, presented in a simple yet highly poetic style.

And now we have a third work, a study of northern Kentucky life during the stormy epoch of the civil war—a novel as different from the author's previous literary works as they are different from his rigidly scientific contributions.

"Stringtown on the Pike" is a powerful delineation of life—es-

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\* Books intended for review in THE ARENA should be addressed to B. O. Flower, 5 Park Square, Boston, Mass.



pecially of some marked phases of life—as known by the author in his childhood. It is weird, almost uncanny at times. As a psychical study of the negro mind during the slavery period it is unique in literature. To those unacquainted with a phase of negro life that is rapidly disappearing, the colossal creation of Cupe may seem exaggerated and unreal; but, to those who have lived with the old Southern negroes and who know their peculiarities, this delineation will be recognized as the strongest and most vivid picture yet afforded by our literature. If the volume possessed no merits other than its value as a psychological study and as a portrayal of the old-time negro, with his strange conceits, his fantastic superstitions, his faith in spells, charms, and signs, and his loyalty to his master, it would be a valuable contribution to our literature; but indeed it possesses many other characteristics that entitle it to consideration. It is a strong book—somber, powerful, and invested with tragic interest. It takes hold of the imagination of the reader in a compelling way. In many respects it is not pleasant reading. The genius of tragedy broods over the book. There are almost as many deaths as in George Ebers's "Egyptian Princess;" but despite this it is safe to say that few readers will lay down the volume until it is completed. There is another merit about the book that should not be overlooked, and that is its fidelity to truth in its delineations of the common life as it was found in northeastern Kentucky forty years ago.

In the future we believe that history will be written in a much broader spirit than that which has characterized it in the past, and works like "Stringtown on the Pike" will prove invaluable to the historian, as they will give vivid and forceful pictures of sections of life in great commonwealths at different periods of time; for this work is one of historical value rather than a romance in the popular meaning of that term. Yet by this I would not imply that it is devoid of imaginative power, for we must not forget that the imagination finds expression in different ways.

Take, for example, art as interpreted by painters. Here are two men of genius and imagination, whose canvases breathe with life; yet one has wrought master creations of beauty from the subjective or ideal world. He has studied Nature in all her various moods. He has drunk deeply from the fountain of beauty, after which he has retired, as it were, within himself and brooded in silent contemplation over the multitudinous expressions of loveliness that have come into his thought-world. At length, with brush in hand, he externalizes the vision seen within the holy of holies of his soul, and the world cries, "Behold a creation of genius!"

Meanwhile his brother artist wanders forth. He too is haunted by the spirit of beauty, but his forte is not in forcibly creating or rearranging scenes, but rather in so interpreting Nature as to reveal the soul behind the symbol. At length he enters a valley, or perchance comes upon a mountain pass and beholds a vision of beauty in one of Nature's gorgeous settings. Thousands of others have seen the same scenes—

many of them thousands of times—without being more than dumbly conscious of the beauty before them. Even artists by the score have copied the very scenes unrolled before our painter and the world has heeded not their work. Now, however, the master beholds and is entranced. As the camera catches the lights and shades and holds the image that falls upon its sensitive plate, so his imagination catches and holds the images before him. But it does more than this. It reaches out and absorbs the elusive soul—that something which defies all mechanical devices to ensnare it. After a time his canvas begins to blossom in beauty. Detail after detail of the landscape is reproduced. With the power of a master he succeeds in quickly seizing the complex phenomena that are essential to an immortal creation; but, this done, he becomes as one lost in absorption, and the passers-by, intent on the little things of the world, say, "Behold the idler loitering in the valley!" When the imagination is satisfied, the work proceeds again. At length it is finished, and the great painting is undraped. Then it is that the world recognizes the presence of a beauty wholly wanting in the canvas of other artists who have essayed to paint the same scene, and even more striking to the eye untrained to the appreciation of beauty than the original, by reason of its loveliness being focused on a small surface.

Here we have two masters who in different ways have wrought immortal works of art—one from the gallery of the ideal, the magic realm of the subjective, the other from the objective; and each picture is great by virtue of the transcendent imagination of the artist, who has caught and held the soul while reproducing the image.

Now, what is true in painting is no less true in literary work. The writer who from the world of the imagination creates a romance revealing life in a true way, or clothes his images in the ideal virtues to which the "love of the best" in man is ever beckoning the race, is a genius, a man of imagination; and he who takes the common life around us and depicts its hopes and fears, its successes and failures, its weaknesses and its splendid triumphs, so faithfully that instead of resorting to invention he gives us a procession of human life, from prattling babyhood to silver age, each so vividly presented that we not only know them but feel their swelling hopes and bitter despair, has caught and reproduced that intangible something which is behind all objective manifestations. He has caught the soul as well as the outer trappings, and like the painter of the wonderful landscape he has vivified his work by virtue of the imaginative penetration that beholds and reveals the spirit as well as the body.

"Stringtown on the Pike" is an analytic study of life, made by a man of genius, and as such it will be of real value to him who in the future essays to write the annals of our Western civilization, and who wishes to be brought into sympathetic *rapport* with varying conditions at different periods and in different sections. Altogether, we regard this book as one of the most notable works of fiction that have appeared in recent years.

THE EAGLE'S HEART. By Hamlin Garland. Cloth, 370 pp. Price, \$1.50. New York: D. Appleton & Co.

Some years ago Mr. Garland expressed his determination to reflect in a series of stories different phases of life in the Northwest, as he had known it in his boyhood and as it exists to-day. His "Jason Edwards," presenting a strong and life-like picture of the struggle of the pioneers in the Dakotas, and "A Spoil of Office," portraying in a remarkably graphic and true manner the great political upheavals of the early nineties, which followed the rise of the Farmers' Alliance and which culminated in the formation of the People's Party, were works doubtless written with the above object in view. And in his latest novel, "The Eagle's Heart," he has given a picture of a rapidly disappearing phase of life in the Far West. Like the buffalo and the Indian, the cowboy is destined to disappear from the plains of the United States at no distant day, though doubtless he will long survive on the vast prairies of South America. It is well that a strong writer, who is able to catch and reflect with almost photographic accuracy passing phases of life, should give us pictures that possess real historic value, aside from their worth as literature or their romantic interest.

"The Eagle's Heart" deals with a Western boy, a youth who grows up in an Iowa village. He has inherited from his father a vicious disposition. In an hour of rage he stabs a man and is sent to prison. While here he comes under the influence of a beautiful girl, who each Sunday afternoon visits the jail as one of a band of singing pilgrims, in the hope of helping the unfortunate ones. This girl becomes a lodestone and an inspiration to the youth during years of rough and turbulent life on the plains. But it is chiefly with the life of the boy who possesses the eagle's heart that Mr. Garland deals. His struggles, trials, hopes, aspirations, and failures are portrayed in simple but vivid language, and in the narration we are brought into *rapprochement* with the wild, picturesque Western life that is so rapidly vanishing. The story ends in the union of the young lover with the girl whose magic voice wrought so strange a spell over his boyhood's years. This novel is full of human interest and is one of the strongest and best long stories that have come from the pen of Mr. Garland.

SOCIALISM AND MODERN SCIENCE. By Enrico Ferri. Translated by Robert R. La Monte. Cloth, 214 pp. Price, \$1.00. New York: International Library Publishing Company.

This is one of the ablest of the philosophic discussions of socialism and its relation to the fundamental law of progressive life that have yet appeared in literature. The author is a learned scientific writer. He has made an exhaustive study of the Darwinian theory of development; he is thoroughly convinced of the truth of evolution; and he is also one of the clearest and most logical advocates of social democracy of our times. The work is characterized by a spirit of fairness and candor that

is beyond praise. It contains no intemperate utterances. It appeals to the reason of its readers, and the argument to prove that socialism is in essential accord with the fundamentals of the evolutionary theory seems to me unanswerable.

The work has so much in its favor as a valuable and thoughtful contribution to social literature that one regrets the presence of the spirit of atheism or crass materialism that has in the past been such a characteristic of socialism on the continent of Europe, and that we believe has cost the cause millions of adherents. We believe that no great ethical movement can ultimately succeed unless it appeals in a compelling way to the religious or spiritual sensibilities of the soul; and while recognizing the fact that dogmatic theology has been one of the great stumbling-blocks to scientific progress, general education, and not unfrequently to the cause of ethical progress, we are also persuaded that the spiritual element in man's nature, which demands satisfaction in even a greater degree than the intellect, cannot be ignored without the civilization or society that scorns it falling back into the night of sensualism and heartlessness. And yet it is not difficult to see how the hostility of the reigning or dominant churches to republican forms of government on the Continent, to socialism, and to the general emancipation of the individual has been largely responsible for the unhappy antagonism evinced by the leading social philosophers of the age. This does not alter the fact, however, that socialism must call to her loyal service the more enlightened and the more conscientious element among the religious people before it can hope to triumph.

So far as socialism seeks to actualize the dream of universal brotherhood it is not only in alignment with the law of progress, but also expresses the higher spiritual sentiments and aspirations of the most civilized. When, however, it seeks to ignore the spiritual side of man's life, it becomes a body without a soul. The next radical and fundamental upward step of humanity demands the union of the heart and the mind—of the soul and the intellectual faculties. With these, man's development from within will be in perfect accord with the juster environment that shall mark the outward relations of society, and growth will be well rounded and happiness, freedom, and love will blossom throughout the world; while peace shall take the place of war and the vast energies and resources of society will be turned from criminal destruction to the development, the enrichment, and the advancement of national and individual existence. This ignoring of the spiritual side of man, this contempt for religion, this atheism which is as paralyzing in its influence as dogmatic theology is destructive in its operation, is in our judgment the fatal flaw in this otherwise most admirable work.

The purpose of the scholarly author is to prove that contemporary socialism is in perfect accord with the underlying laws of development and the fundamental facts revealed in "the physical, biological, and social sciences, whose marvelous development and fruitful application are the glory of our dying century." In the opening chapter a full presentation is made by liberal quotations from Ernest Haeckel's and

Oscar Schmidt's famous attack on socialism, called forth by Virchow's historic declaration that "Darwinism leads directly to socialism." Taking these attacks as a text, M. Ferri examines each assertion with the fairness of a man trained to judicial methods and with the exactness of a scientist. He ably meets each argument, and in the course of his concise but masterly discussion he makes a luminous presentation of the essential demands of socialism and shows how they are in perfect alignment with the laws and demands of the fundamental truths revealed by Darwin and his great co-laborers in the domain of physical science.

This volume will be of great value to persons desiring to understand the case of modern socialism in its relation to the theories of Darwin, Spencer, and other leading evolutionists.

THE CHILDHOOD OF JI-SHIB THE OJIBWA. By Albert Ernest Jenks, Ph. D. Illustrated with 64 pen-and-ink sketches. Cloth, 130 pp. Price, \$1.00. Madison, Wis.: American Thresherman.

In this fascinating little study of Indian child life Dr. Jenks has drawn from one of the richest of the native fields for romantic poetry. Longfellow, Cooper, Hathaway, and a few other scholars have dwelt somewhat extensively upon Indian life; but in some respects the strongest picture of the domestic life and the mental workings of the red man's mind is found in a unique story entitled "The Queen of the Woods," written by the late Indian chief, Simon Pokagon, of the Pottawattomie band of Indians. "The Childhood of Ji-shib" is equally sympathetic in treatment and far more finished from a literary point of view than is the work of the venerable chief, while the intimate knowledge possessed by Dr. Jenks of Indian life, habits, customs, and ideas enables him to weave into this beautiful little story a vast fund of information not hitherto accessible to the general reader. Moreover, the author has put into the work that loving heart-interest that invests any subject with an irresistible charm. The book is an imaginary biography of a little Indian boy from birth to manhood, and I have seldom read a simple story so thoroughly delightful from cover to cover as is "The Childhood of Ji-shib." Of its value from a scientific view-point, as accurately picturing forth Indian life and customs, no less an authority than Mr. W. J. McGee, of the Department of Ethnology at Washington, bears testimony in the following words from a note to its author:

"The story is good ethnologically and geographically; your description of the habitat, habits, and customs of the Ojibwa Indians is accurate; your local coloring is faithful; and you have caught with exceptional success those elusive characteristics of Indian thought expressed in oblation, fasting, preparation for warfare, and other peculiar customs."

As a whole, the work is well written, simple, and dignified in style. In only one place do we find a slight exception, and that is on page 24, where the author introduces the slangy phrase, "Before he could say Jack Robinson," which seems strangely out of place in a piece of work



which otherwise is so excellent in its literary form. The volume contains sixty-four excellent pen-and-ink drawings illustrating the text. It is a book that should find its way into the homes, schools, and libraries of our land.

**THE WHITE FLAME.** By Mary A. Cornelius. Cloth, 402 pp. Price, \$1.25. Chicago: The Stockham Publishing Company.

In this work we have a psychical romance. It is a story full of action, and for those who are interested in the weird and the unusual it will doubtless hold a peculiar fascination. It contains much noble thought, and many of its lessons are suggestive and helpful. Yet from our experience in psychical investigation, and from the teachings given by many of the nobler exponents of modern spiritualistic and occult philosophy, we cannot feel that much set down is in perfect alignment with the probable, even though it may have been flashed on the sensitive consciousness of the author. The story of the strange inmate of the chair, for example, impresses us as being fantastic rather than probable; and much connected with Madam Laureola also seems to us strained beyond the point of probability, even to those who accept psychical phenomena as presented by modern spiritualism. Barring these features, however, the work is replete with truth and helpfulness. It is a unique story, entirely out of the beaten path.

**AS IT IS TO BE.** By Cora Linn Daniels. Cloth, 294 pp. Price, \$1. Boston: Little, Brown & Company.

A handsome new edition of Cora Linn Daniels's "As It Is To Be" will doubtless bring this strange and fascinating work to the attention of thousands who did not see the earlier edition. It belongs to the rapidly increasing psychical literature, and is one of the very best works of its class that have appeared. The work evinces an excellent literary style, and consists for the most part of messages purporting to come from the "other side," replying at length to a series of questions relating to the life that now is and to the to-morrow of existence. The ethical teaching and the general atmosphere of the work are high, pure, and invigorating.

**POWER THROUGH REPOSE.** By Annie Payson Call. New and enlarged edition. Cloth, 201 pp. Price, \$1. Boston: Little, Brown & Company.

In 1891 appeared "Power Through Repose," by Annie Payson Call, a sane and practical treatise devoted to the improvement of the health of body and mind through rational methods, and its excellence won for it a wide circulation. A new edition has just appeared containing three



additional chapters in which the author discusses The Rational Care of Self, Our Relations with Others, and the Use of the Will. Our busy age, with its feverish life, calls for just such works as this, which not only raises the danger signal before a thoughtless age, engrossed in anxious care, but also shows in a practical way how to obtain rest and quiet, how to use the brain, and how to conserve energy and avert nervous strain. Its suggestions for disciplining the mind are very sensible. Indeed, this volume is one whose perusal will in many cases save large doctors' bills by showing the reader how rationally to help himself into a normal state.



#### LITERARY NOTES.

THE G. W. Dillingham Company have issued a little booklet (price, 25 cents) entitled "The Religion of Abraham Lincoln," and containing the correspondence between Gen. C. H. T. Collis and Col. Robert G. Ingersoll on that subject. Gen. Collis is reenforced in his position by letters from Gen. Sickles and Hon. O. S. Munsell. The discussion, we think, is hardly worth the while. The fact is fairly well established that Mr. Lincoln did believe profoundly in the reality of an overruling God of wisdom and justice, and he believed in the presence of angels round about us, who were ministering spirits and who sought to aid and strengthen man. He also believed in prayer; but, though he attended church, he never identified himself with any sect.



"WOMANLY Beauty of Form and Feature; or, The Cultivation of Beauty Based on Hygiene and Health Culture" is the title of an excellent book of over 200 pages (price, \$1) issued by the Health Culture Company of Fifth Avenue, New York. It contains contributions from twenty physicians and specialists, embodying a vast fund of practical information, and is in alignment with the spirit of the age, which seeks rationally to develop the body rather than depend upon drugs and empirical treatment after disease has come as a result of the abuse of Nature's laws.



A VERY suggestive and helpful little volume for those deeply interested in the New Metaphysics and psychic thought of our time is entitled "A Series of Meditations." It is by E. C. Gaffield and published by The Order of the White Rose, Syracuse, N. Y. An idea of the work may be gleaned from the following, which are some of the subjects treated: Aspiration; Spiritual Vibrations; Harmony; Man's Relation to Spiritual Law; How to Reach the Heights.

THE KING ON HIS THRONE; or, Power of Will Through Direct Mental Culture. Cloth, 444 pp. Price, \$2. Lynn, Mass.: The Nichols Press.

[Reviewed by the Rev. R. E. Bisbee.]

In a State where I once lived it was a common remark: "The snows will not leave the mountains until the warm weather comes, and the warm weather will not come until the snows leave the mountains." But the weather became warmer, and the snows began to leave the mountains, and with the disappearing snows the weather became warmer still. So with humanity. Society will not be perfect until the individual is perfect, and the individual will not be perfect until society is perfect. This simply means that each acts and reacts on the other.

Different classes of reformers are apt to ignore one side of this truth. The socialist turns his attention wholly to society. He ignores the individual, or considers him the helpless product of his environment. On the other hand, the individualist is apt to ignore the influences of society. He lays great stress on the power of will. Man, he says, is the maker of his own destiny. He can be what he chooses. The pessimist sits in helpless despair, demanding that all forces in progress become perfect before he will believe in any advance. How can it be warmer until the snow is gone; and how can the snow melt until it is warm? But in spite of him—

" . . . life shall on and upward go;  
Th' eternal step of Progress beats  
To that great anthem, calm and slow,  
Which God repeats."

The Rev. Frank C. Haddock, pastor of the Boston Street Methodist Episcopal Church, Lynn, Mass., has taken an opportune moment to give to the world his carefully prepared and thoroughly practical book on the "Power of Will." It comes in time to check a tendency on the part of reformers to charge too much to society. This author is no dreamer and no pessimist. He believes that God has given the soul powers next to infinite. There should be in the world more of the spirit of Diogenes when he said to Alexander, "Stand out of my sunlight." The great philosopher was so rich in himself that even the conqueror of the physical world could add nothing to his wealth.

"Life," says Victor Charbonnel, "is within us. The highest life is only to be found in the deepest recesses of our own souls." In similar strain Mr. Haddock: "A purposeful mind says, sooner or later, 'I resolve to will!' After a time that phrase is in the air, blows with the wind, shines in star and sun, whispers with dreams of sleep and trumpets through the hurly-burly of day. Eventually it becomes a feeling of achievement saturating consciousness. The man knows now the end, because all prophecies have one reading. He has begotten the instinct of victory."

I have spoken of Mr. Haddock's book as thoroughly practical. It is

also, I believe, thoroughly scientific. It remains simply to give the reader of this review some illustrations of the author's purpose, style, and method. The work is, as suggested, a scientific manual, analyzing the moods of mind and setting forth practicable exercises for the senses and the mental powers. Its underlying law is thus stated: "Continuous and intelligent thought on the growth of any power of the mind, with exercises carried out to that end, exerts a developing influence upon the function itself. In the case of the will this would follow without systematic practise, but regulated exercises tend to keep the mind on the desired goal and to increase the power of the idea of will-culture incalculably." This law is evident throughout the book. The mind seems capable of storing up reserve energy: "The brain is a kind of dynamo in which mental force is generated. The moods of feeling, energy, decision, continuity, understanding, righteousness, indicate the mind's dynamo in action. As the nerves store up energy, so the mind seems capable of storing the elements of these moods, and thus of the will."

In the five parts in which the author treats his subject, these basic factors of will-training are constantly employed. Part I. deals with theory and life; part II. has ten chapters devoted to physical exercises; part III. (five chapters) contains a large body of directions for mental practise; part IV. deals with the destruction of habit; part V. is notable for its discussion, among other things, of "The Personal Atmosphere" and "The Child's Will." Extracts at random will suggest the author's idea of will-training and incidentally indicate his style:

"Life must become habituated to right general principles."

"What men get out of life and Nature depends upon the amount of mind that can be put into the look."

"Whoever puts his whole hand to the growth of will-power has power of will wholly in hand."

"The ability to think clean through a subject sets a man apart as one of the victors of life."

"The secret of the will is anticipation based on memory."

"The man who strips his statements to the fewest possible words is not often an exaggerator, in the nature of the case, and is seldom a liar."

"If the habit is the result of a psychic desire, the will must be bolstered by a new psychic ideal, of any character whatever."

"Your want of symmetry shows your need of alliance with the nature of things."

"The predominant characteristics of a psychic atmosphere in its best estate may be expressed in the following words: health, self-control, intelligence, talent, education, will, energy, love, pride, hope, cheerfulness, belief, friendship, benevolence, justice, truth, moral purpose, worship."

The book is something more, however, than a dry manual. It abounds in helpful suggestions and striking sentences: "In the long run every man gets about what he deserves." "For the service of a sound soul the universe will pay any price." "Opportunity crowds upon the imperious will." "Many wills are like guns set with hair-triggers—they go off before good aim can be taken." "The honest soul need fear nothing." "The uncontrolled brain is a fool's paradise." "A bad word is like a mule's hind feet; it will wait years for its chance—and it usually

gets that chance." "Questions are the crackling noises of an opening brain." "The universe as a field of endeavor reacts upon the individual, to be sure; but the true goal is to get the man to react rightly upon the universe."

The book contains hundreds of axioms and striking aphorisms. It is neither light reading nor dry reading. If it is patiently studied and practised, it should fulfil its promise—a stronger and more symmetrical will to every one capable of intelligent labor. The directions for practise are clearly and accurately set out. The general atmosphere of its pages ought itself to inspire the will of any reader.

ROBERT E. BISBEE.



#### BOOKS RECEIVED.

"Morning Echoes." By John E. Morgan. Cloth, 103 pp. Publisher not given.

"The Heart of David the Psalmist King." By A. G. Heaton. Illustrated by author. Cloth, 389 pp. Washington: The Neale Company.

"The Great Trial of the Nineteenth Century." By Samuel C. Parks. Cloth, 173 pp. Kansas City, Mo.: Hudson-Kimberly Pub. Co.

"Christianity in the Nineteenth Century." By the Rev. George C. Lorimer, D.D. Cloth, 652 pp. Fully indexed. Price, \$2.00. Philadelphia: The Griffith & Rowland Press.

"The Discovery of a Lost Trail." By C. B. Newcomb. Cloth, 282 pp. Price, \$1.50. Boston: Lee & Shepard.

"The Religion of Democracy." By Charles Ferguson. Paper, 170 pp. Price, 50 cents. San Francisco: Elder & Shepard.

"The Fall and the Restoration: A Study in Social Science." By Imogene C. Fales. Paper, 55 pp. Price, 30 cents. Loudsville, Ga.: Peter Davidson.

"The Mahogany Table." By F. Clifford Stevens. Paper, 234 pp. Price, 25 cents. New York: J. S. Ogilvie Pub. Co.

"Rending the Veil." By William W. Aber. Cloth, 507 pp. Kansas City, Mo.: Hudson-Kimberly Pub. Co.

"The Gospel According to Nature, together with certain references to the Kingdom of Heaven and Other Matters." By a North American Indian. Paper, 37 pp. Price, 10 cents. Address P. O. Box 443, Des Moines, Ia.

"Hermaphro-Deity: The Mystery of Divine Genius." By Eliza B. Lyman. Paper, 275 pp. Price, 50 cents. Saginaw Printing and Publishing Company, Saginaw, Mich.

"How to Live Forever." By Harry Gaze. Paper, 52 pp. Price, \$1. Oakland, Calif.: Harry Gaze.

## NOTES AND ANNOUNCEMENTS.

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THE article on "Farming in the Twentieth Century," by the Rev. E. P. Powell, which was announced to appear in this issue of THE ARENA, is unavoidably held over owing to the pressure upon our space. It will be published in our April number, and will be the first of a series of prophetic papers bearing upon the problems of science, commerce, industry, and economics of which the need of a solution is certain to become increasingly urgent as our new era advances. The second article of this series, to appear in the May ARENA, will be entitled "Geology in the Twentieth Century," from the authoritative pen of Charles R. Keyes, Ph.D., late director of the Missouri geological survey.

Of a somewhat analogous nature is the leading contribution to the present issue, in which Dr. Bixby's discussion of the relation that science bears to religion points inevitably to the early disappearance of the antagonism that for centuries has existed between theologians and materialistic scientists. The "concessions" to be made on both sides are shown to be in the direction of loftier views of *all* life, of saner conceptions of Deity and of the origin and destiny of man. That scientific studies are not inimical to the development of the true religious impulse, but rather contribute thereto, and in turn are *aided* in the consequent spiritualization of the commonest facts and truths of scientific knowledge, is becoming more clearly recognized by the broadest minds in both avenues of research.

Remedies for Trust abuses are abundant in American literature, and, with the onward march of the spirit of combination, discussions of this most odious and oppressive of the forms of monopoly become marked by proposals that are not only impracticable and absurd but frequently degenerate into mere denunciation, which is never argument. That the fault in this, as in all other forms of injustice, lies primarily with the people themselves, is plainly shown by Walter Clark, LL.D., who follows Dr. Bixby, in this issue, with a forceful paper pointing out how Trusts can easily be crushed. Justice Clark has been for a dozen years on the supreme bench of North

Carolina, and his rulings have been conspicuously able and his writings clear, judicial, and strong. His suggestions concerning additional legislation, both Federal and State, are commended to every voter.

Of perhaps equal economic importance in this month's ARENA is our interview with Eltwed Pomeroy, A.M., on "Direct Legislation and Social Progress." The development of this great idea in lands supposed to be much less democratic than ours, as shown by Mr. Pomeroy, will surprise many Americans, although the fact that this proposal contains at least the germ of the solution of our social and political exigencies is conceded by most thoughtful minds. Editor Flower's biographical sketch of this modern writer and thinker is not the least interesting and suggestive feature of this contribution.

Mr. Marshall's article on "The Army Canteen" was written before the recent taking of definite action by Congress excluding the institution from all military posts. But many advanced temperance reformers agree with this writer's conclusions concerning the inexpediency of such legislation. The idleness that is a concomitant of militarism in time of peace encourages the drink habit, which under official regulation and control would assuredly be less demoralizing than when surreptitiously indulged. This fact is proved by the history of every prohibition community. Mr. Marshall's plea for temperate and rational action on the part alike of the individual and the State is weighty and convincing, and thoroughly in line with the progressive spirit and purpose of THE ARENA.

Among the papers in preparation for our next issue are: "The Empire State's Guardianship of the Insane," by Frank Leslie Warne, LL.B.; "Professor Fiske and the New Thought," by Dr. R. Osgood Mason, and "The Passing of the Declaration," by Prof. Leon C. Prince, of Dickinson College, Carlisle, Pa. The last-named contribution will provoke widespread discussion and emphatic dissent in many political, social, and journalistic circles; but it contains much original thought, is a unique view of the "palladium" of American liberty, and is a literary production of a high order of merit.

J. E. M.



